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By HON. E. T. MEREDITH

Reparations and Interallied Indebtedness
By FRED I. KENT

Why Successful Business Men are Creating Living Trusts
By J. R. NUTT

Radio as a Business Stimulant

Business Conditions
By C. L. BRADLEY
Vice Pres., The Union Trust Co.

A Business Romance
By MILDRED OAKERT WAUGH

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Trade Winds

FEBRUARY — *Published by* THE UNION TRUST CO., *Cleveland, Ohio* — 1924

Agriculture *Is* Fundamental!

By Hon. E. T. Meredith

Formerly Secretary of Agriculture

That agriculture is fundamental and that all business is influenced by conditions in agriculture is generally conceded, and yet the average man does not seem to give that fact the consideration its importance warrants. What I should like to do, if possible, is to show first of all that agriculture is absolutely controlling in your business and that the opportunity to go into banking, the opportunity to go into the publishing business, the opportunity to market groceries anywhere in the United States, the opportunity to establish a drug store in Boston, in the final analysis has been given us because of agriculture.

And then I would like to prove, if I can, that the conditions in agriculture from year to year most vitally affect every one of those institutions. I desire to show that the income of agriculture—and consequently its support of business—is regular, not hit and miss or spotted throughout the year and not largely all in one season of the year as many business men seem to be under the impression it is. And finally I want to point out some of the things that we can do to make the farmers' problems our own, and how we can make their prosperity our own.

That I may more clearly emphasize some of these points, I have had some data put on charts.

On Chart No.1 (Page 2) is shown that the opportunity to engage in business is influenced by the number of acres farmed. The dotted line is the number of business houses in the United States, going back to 1870. The solid line is the number of improved acres in the United States. In 1870, we had 175,000,000 acres of improved land and 425,000 business concerns. In 1880, we had 275,000,000 acres of improved land, and 746,000 business concerns. In 1890, we had 375,000,000 acres of improved land and 1,110,000 business concerns. In 1910, we had 475,000,000 acres of improved land and 1,500,000 business concerns, and in 1920, 500,000,000 acres of improved land and 1,800,000 business concerns.

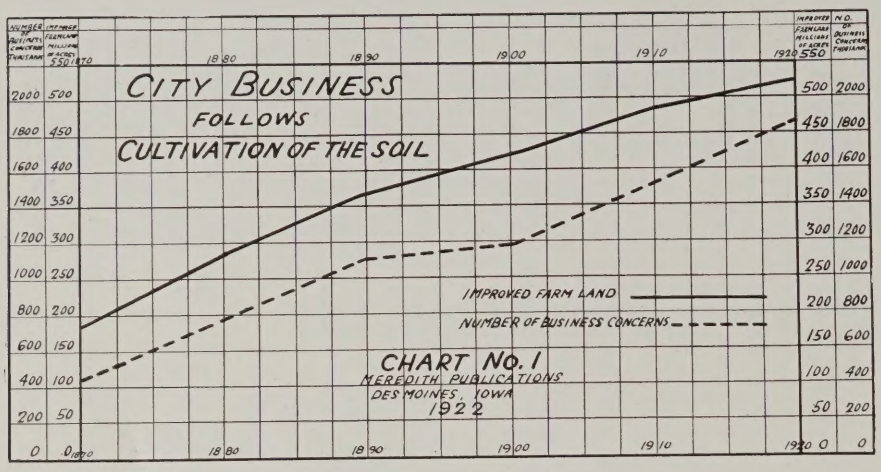
E. T. Meredith

You will note by the chart that the increase in business houses has been coincident with the increase in the number of acres of improved land, from which it would seem that the opportunity to go into business is to a considerable extent controlled by the number of acres of improved land—farm production.

It will also be noted that in 1870, we had one business concern for each 425 acres of improved land; in 1880, one for each 375 acres of land; in 1890, a business house for each 350 acres of land; in 1910, one for each 300 acres of land, and in 1920, a business concern of some kind for each 275 acres of improved land in the United States. It is without doubt true that as the agriculture of the country became more intensified, better methods came into general use, and the farms became better equipped with machinery, each farm could more easily support its business concern. If it is a fact that agriculture is fundamental and that the conditions in agriculture are reflected in business and that we have one business concern to each 275 acres, an added income to each of these farms must affect the business of the country very decidedly.

If our premise is correct, it would seem to follow that the average of what happens on each 275 acres of improved land in our country from year to year must be the average of what happens to the business houses of the country from year to year.

The question is, does the condition of agriculture affect the condition of these business houses? This is shown on Chart No. 2. Taking the return in dollars per acre of improved land since 1866, we find an average of $14 an acre for every acre in the United States for the whole period. During the same period there have been an average of 95 failures a year to each 10,000 business concerns. Using these two —$14 return to each acre, and 95 failures per year for each 10,000 business houses—as a base line, and super-imposing a line showing farmers' income (the solid black line) and also charting the business fail-



*" * * * from which it would seem that the opportunity to go into business is controlled by the number of acres of improved land—farm production."*

ures each year (the dotted line indicates business failures), we then have the relation of the two very clearly before us.

THE condition in 1866 reflects the unsettled currency situation immediately following the Civil War. Commencing with 1868, we find that the crop return and the failures are practically together. We find that during 1868-69, up to 1871, the return to agriculture was above the average, running up to a little less than $16 an acre. During the same time, you will note that the failures were below the average, running down to 60 to each 10,000. During 1871 and 1872, there was a decline in the return to agriculture for each acre, and an immediate increase in the number of failures, the two lines crossing the base line at practically the same point. During 1874, 1875, 1876 and 1877, agriculture was below normal and failures were very much above normal.

It will be noted that from 1884 to 1904, a period of twenty years, the return to agriculture was always below the average and that during this period the failures were above the average. In 1907 and 1908, agriculture received more than an average return and the failures went below the average number, except the latter part of 1907 and the early part of 1908, which was the result of the financial panic of 1907, wholly unrelated to any fundamental cause. It will be noted that as agriculture was getting more than the average return, business very quickly recovered from its own indigestion. A similar situation arose in 1915, so far as business was concerned, no doubt because of the war. From that point to 1918, agriculture received an increasing return and the failures constantly decreased. In 1919, agriculture suffered a decline, continuing until 1921, and at almost the exact point failures commenced to increase. In 1921, agriculture took a turn for the better, going from an average of $14 to an average of between $16 and $18 per acre. The effect upon business was immediate.

Our experience of the last two years clearly demonstrates the working out of this principal. In 1921,

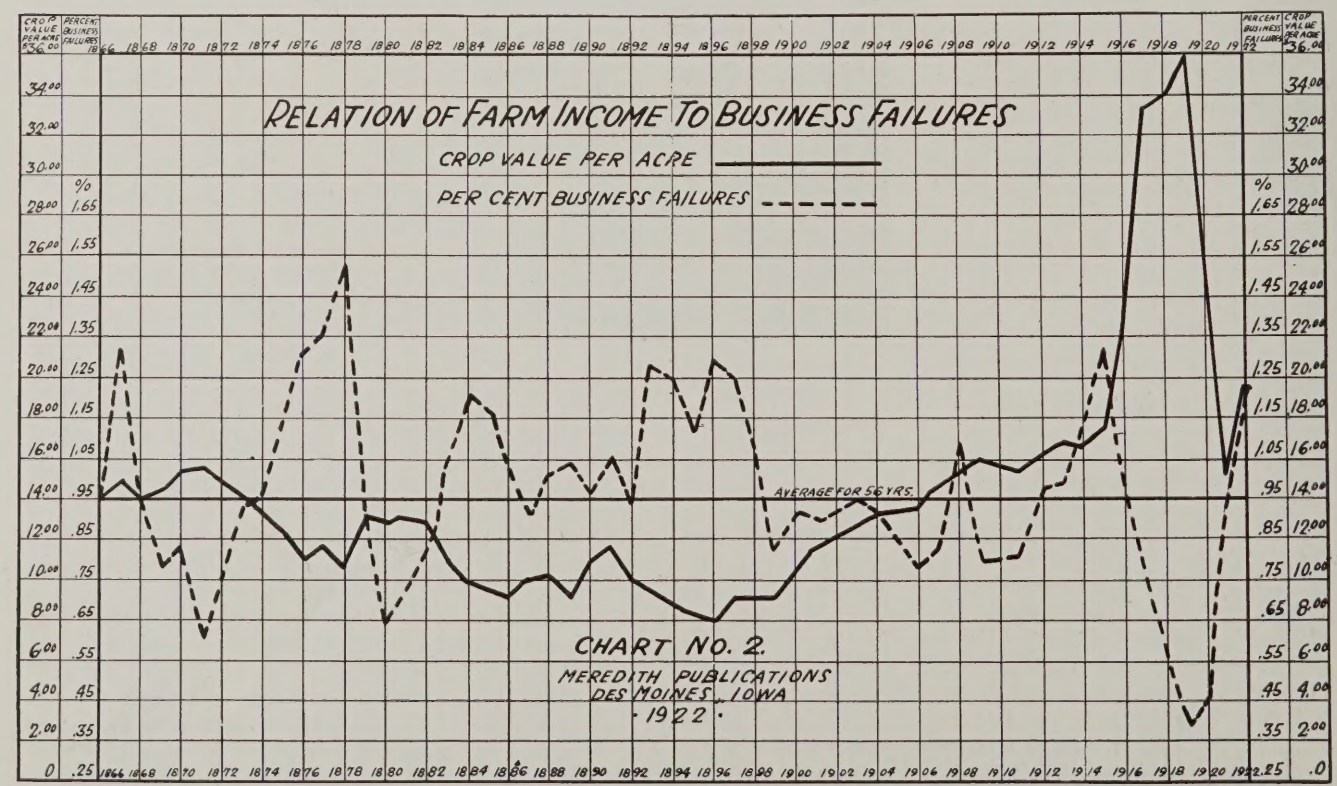


Chart No. 2, discussed on pages 1, 2 and 3

business of all kinds experienced the most serious depression in years. In December of that year, farm prices began to recover slightly, and by March, 1922, the increase in farm prices was such as to indicate that the farmers' return for 1922 would considerably exceed the income for 1921. Business in general responded to the improved agricultural conditions. At the end of 1922, a review of the situation showed that the farmers' income for the year had jumped from $12,402,200,000 received in 1921 to $14,310,200,000.

It is true that the business failures increased in 1922, but a careful study of the situation shows, and I believe any banker will bear me out in this, that many of the business failures recorded in 1922 really belonged to 1921. In other words, most of the failures actually occurred in 1921; but because of the mobility of our credit system and the earnest desire of our bankers to save every business possible, many 1921 failures were carried along into 1922 before it was necessary actually to declare insolvency.

Crop estimates by the Department of Agriculture give every reason to believe that the 1923 farm income will exceed that of 1922 from a half billion to a billion dollars. This means an increase in the return per acre of from one to two dollars. In my opinion, business will therefore continue at its present fair rate. The September 1, 1923, report of the Department of Agriculture shows that the index figure of farm prices on that date stood 22.1 per cent higher than a year ago, and 25.5 per cent higher than two years ago.

The effect of return to agriculture on business conditions is positive and cannot be escaped.

If it is true that since 1866 every time $1 or $2 an acre is taken from the returns to agriculture, the failures go up in proportion. Are you not interested in agriculture? Are you not interested in the production in dollars, for each improved acre of land in the United States? Do you need any further evidence than this chart to prove that the condition of agriculture, the return in dollars for the whole United States, is controlling? Is it not clear that if the farmer received a dollar an acre less, failures immediately mount, and if for any year during the whole period, he receives a dollar more, the number of failures in the United States is reduced?

There are many conditions between absolute failure and booming business. Some of those who do not fail may be struggling, others quite hard-pressed, some who say that business is slow, and others only fair; we do not have to experience absolute failure to have our businesses affected by conditions in agriculture. It seems to me that these charts do prove the controlling influence of agriculture.

And why should agriculture affect all business? I spoke in Cleveland recently. Prior to my talk, I clipped the first two pages of the Cleveland classified telephone directory on which the first ten listings were advertising agencies, adding machine companies, acetylene gas plants, amusements, abstractors, accountants, etc. I took ten of them and said, "Suppose the farmer sends $200 to Cleveland for an acetylene gas generator." The acetylene gas company, having received the farmer's payment says, "We will go over to one of these addressing companies and let them circularize our business prospects." And thus, the addressing company gets a good order, and says, "All right, we have an order. We are busy. We need an adding machine." And business being good, they buy an adding machine. The adding machine company says, "Let's advertise." They go to an advertising agency, and business is good in that concern. And somebody in that agency has saved up enough money to buy a house. And he needs an abstract. And the abstractor must have an accountant to help make it, and the accountant, out of the proceeds from his work, takes his family to the theater—amusement.

If the farmer had not paid his $200 for the gas generator, the amusement man would not have had the accountant as a patron.

The farmer's $200 means only $200 to him, but a thousand dollars or more to the town because of the chain of purchases it makes possible.

If you follow the pedigree of any dollar back far enough, you will find a farmer as the foundation sire.

A man said to me recently, "Yes, but you forget that the first man that got that money took ten per cent out of it as a profit, and the next man took ten per cent out for a profit, and the next man took ten per cent, and pretty soon the original amount had disappeared."

I said, "All right. What would you do with $100 profit made today?" "I would go home this evening with that suit my wife has been wishing for. I would take that $100 to the department store," he replied, so you see, even our profits are put right back into the channels of trade, and the $200 keeps on moving.

While I was in a store in New York recently, I saw a girl buying a tube of Colgate's dental cream. I asked her at what work she was

It gives a new dignity to the humble cow to know that the farmer received three times as much for his milk as he did for that much advertised crop—wheat

engaged. "I am a stenographer," she replied. "Where?" "Upstairs." "Are you interested in agriculture in Madison County, Iowa, or Texas?" "I never saw a farm and wouldn't know one if I did." I went up to see the lawyer who employed her. "Are you interested in agriculture?" "Not a bit. I am employed by a bank. That takes all my time." I went to the banker, and asked, "Are you interested in agriculture?" "No, we have no farmers' deposits. We have no farmers' loans." "With whom do you do business?" "Steel corporations largely." I went to a steel corporation. "Are you interested in agriculture?" "Not a particle. We never sold a farmer a piece of steel. We only manufacture structural steel." "To whom did you sell your last order?" "Bill Smith of Rock Island, Illinois."

I saw Bill Smith and said to him, "Are you interested in agriculture?" "Well, I should say so. Why, we sell the farmer trucks and tires. We sell him wire fences, we sell him roofing, we sell him a thousand things. And we just bought some structural steel last week to build a new unit to our factory."

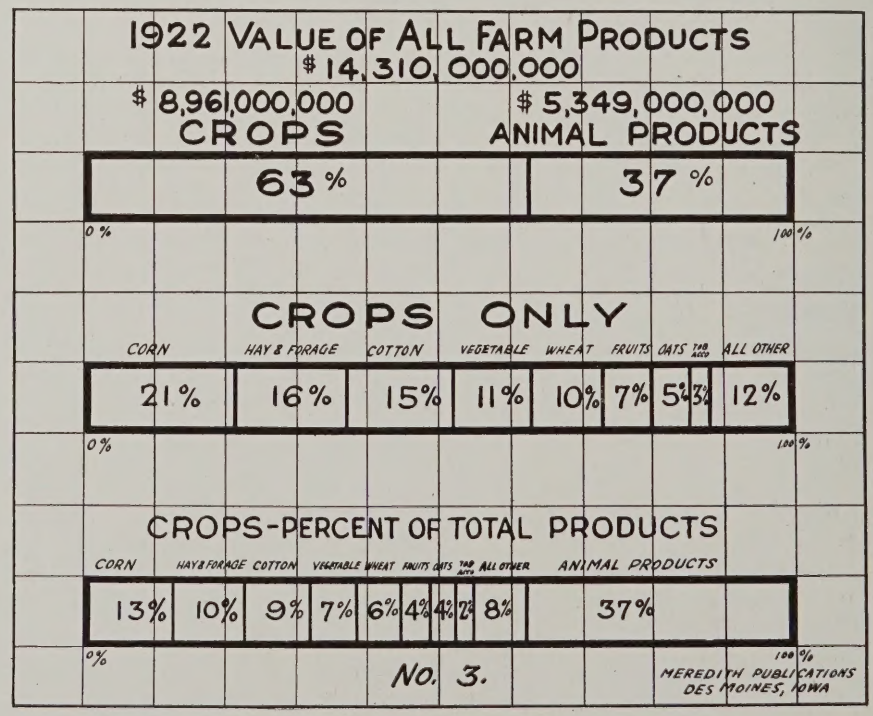
All right, no tire order—no structural steel order; no structural steel order—no steel company; no steel company—no bank; a bank without deposits—no lawyer; a lawyer without a client—no stenographer; and no stenographer—no Colgate's.

Whenever one single source of farm income takes a slump, the calamity howlers make so much of it that many of you are led to overestimate its effect upon general business as was, in recent months, the case with wheat.

To read the speeches quoted almost daily in our newspapers, one would think that the farmer received his entire income from wheat; and yet this chart, No. 3, made from actual 1922 production figures, shows that the farmer received less for his wheat than he did for his corn, hay, cotton or vegetables, as well as from several sources of animal product income. The farmer received three times as much for his milk for instance as he did from wheat.

This chart is worth considering and having in mind when you read some of the false reports which are almost constantly appearing concerning the farm market. In the first place, we find here on this top bar that 63 per cent of the farmers' 1922 income came from crops, and 37 per cent from animal products. On the second bar, we find that of his total crop income, only 10 per cent of it came from wheat. And on the third bar, we see that of his total income from both crops and animal products, only 6 per cent was derived from wheat. When wheat dropped

(*Please continue on page 21*)



Reparations and Interallied Indebtedness*

By Fred I. Kent

Vice President, The Bankers Trust Company, New York City

Editor's note: Mr. Kent recently spent several months in Europe where he met and conferred with many leaders of European thought and action. His clean-cut, thoughtful and unprejudiced analysis of the situation is refreshing to anyone confused by the deluge of conflicting opinions now prevalent in our daily press.

The legacies of war are the great human problems upon the successful solution of which depends the lives of succeeding generations.

Such problems are given to humanity at a time when the minds of the people are so disturbed from suffering and hatreds that they are least competent to solve them. This very condition of unsettled mentality, or broken morale, is in itself one of the after-war problems, and one in which the time element must of necessity play an important part.

Those who were fortunate enough not to have been thrown into the very maelstrom of war are often too prone to criticise those who may have had to bear the brunt of the fighting and devastation.

Such criticism comes from several sources:

1. From the demagogue, who, being mentally too weak to be constructive, has to depend for his force upon the criticism of others.
2. From those having a real lack of understanding of the situation, but who may mean well, and—
3. From persons whose own interests are so seriously affected by conditions prevailing in the aftermath of war that they fail to exercise the patience and forebearance that the situation requires.

The restoration of poise to human beings whose mentality has been upset through the horrors of war is an evolution, and evolution is slow moving. It can be helped but not hurried, and impatience can have no place in correcting such disruption.

The conditions which have prevailed in Europe since the Armistice are not to be wondered at, nor should those concerned with them be lightly criticised. Standing apart in peace and promiscuously blaming those still struggling in the throes of unsettlement can make wounds smart, but it cannot cure them. Peoples super-sensitive from passing through war cannot be lashed into calmness, prudence and good judgment by the lash of criticism.

We, in America, have something better to do than loosely to criticise those with whom we fought, or those

whom we fought against. There are certain facts which exist. They have to do with the temperaments and with the acts of the peoples and with the conditions by which they are surrounded. They must be recognized if the world's problems are to be solved, but recognition does not involve ill-advised criticism.

The treaties of Versailles, San Germain and the Trianon, which are the outgrowth of the World War, are in existence—and certain conditions have developed under them. The budgets of many nations are out of balance and currency inflation exists in many degrees, extending to that in Germany, where it has resulted in the complete dissolution of the German mark. Belgium and France are in the Ruhr, and the Allies hold the German Rhine. Large sums are being spent on the military and on military equipment in many European countries.

The passive resistance of Germany, undertaken upon the occupation of the Ruhr, has been broken officially, but has not yet been completely given up by those who were the pawns in the game.

Unemployment exists in many countries and to a very terrible extent in Great Britain, and if conditions continue as they are now going on in Germany, an even worse situation can be expected there—a situation which may extend to all Europe.

None of the Nations in Europe are on a gold basis and there is consequently a constant fluctuation in exchange rates, which would make the rebuilding of trade and commerce extremely difficult, even if peace prevailed.

The Governments of every one of the Nations of Europe are engaged in trying to protect their own countries to the best of their ability. They should not be blamed for doing so, as it is no more than we ourselves are doing. That many men in positions of power may be mistaken in their ideas as to how best to protect their countries, is true, otherwise there would be no European problem. Added to such mistakes in judgment, are the difficulties due to forces brought to bear on Government by masses of the people, who have followed and are following false leaders. Devastation exists in many parts of Europe and trade and commerce is uncertain.

Underlying this whole situation—roughly sketched above—is a latent Hope that will come to life and do much for the world, provided only a condition of peace can be brought about in Europe fairly soon and before this Hope again gives way to despair.

The key to this complex situation lies in the settlement of Reparations and the Interallied Indebtedness.

The European problem has so developed as to carry within it other matters in addition to the mere question of the payment of Reparations. But regardless of whether such other elements in the problem are worked out, there can be no final settlement until the total amount of

*Address delivered before the Bankers Club of Cleveland

Reparations can be determined—an amount that the Allies and Germany will agree upon as one that will effectively meet the conditions which exist.

France, while possibly realizing the fact that an amount which would encompass both Reparations and the Interallied Indebtedness would be more than Germany should be asked to pay, cannot see why her own people should be called upon to stand the strain of the situation instead of the people of Germany.

Great Britain also believes that Reparations plus the Interallied Indebtedness would be too large a sum to ask Germany to pay, but she does not feel warranted in making possible a reduction of the amount of Reparations by taking upon herself the burden of the Interallied Indebtedness.

It is easy for us, in America, to say that France, for instance, should not consider the question of Reparations in arranging for its debt settlement with the United States and Great Britain. But, if France is going to agree to any form of funding on an honorable basis, is it not necessary that she should first assure herself that she is going to be in position to meet her payments when they become due?—and how is she going to tell as to her ability to pay at any certain time until she knows what Reparations she is going to receive and when she is going to receive them?

This being true, we might say that we should not attempt the funding of the Interallied Indebtedness until the Reparations question is settled—a point of view which should have a good foundation for consideration if Germany were in a position to pay the Allies Reparations and what they owe on their Interallied Indebtedness. But it is generally felt that Germany cannot do this, at least without too great hardship to its people; and the French cannot see why they should be called upon to pay Great Britain and the United States everything they receive from Germany, thus leaving them with their own Reparations to pay. Consequently the French will not settle the Reparations question on any basis that does not mean a receipt by France of what it requires for Reparations plus such payments as she must make to Great Britain and the United States.

The situation therefore has reached an impasse. It can only be solved in one of two ways:

1. By means of a continuance of the prevailing difficult conditions to the breaking point, which may result in great suffering to many peoples and a possible great disruption of the trade of the world, after which some sort of final order will come out of the chaos that history tells us would ultimately happen, or—
2. The United States will have to take part in solving the problem.

The first way would be most unfortunate and, if allowed to prevail, would react upon this country in a very serious manner.

The second way can be made effective only by means of most careful, patient and intelligent negotiations.

Before considering what the United States can do, let us state what it should *not* do.

There are three things which the United States should not do—nor is there need for us to do them:

1. We should not pour money into Europe in any general way.
2. We should not enter into any alliances which would take from our Government full power to control its actions and full responsibility for them, no matter what crisis might arise between Nations.
3. We should not take any action which would strengthen the forces for evil which exist in the world.

Now what *can* the United States do that it is justified in doing?

The United States is a creditor Nation in the Interallied Indebtedness, together with Great Britain and France. Through the Debt Funding Commission, it can establish negotiations with the other two creditor nations which may be made the foundation for further negotiations which, in turn, might be carried on through our State Department, and, if successful, would solve the whole problem.

It must be admitted that any funding of the Interallied Indebtedness which did not undertake some readjustment of the loans might not be effective in obtaining the greatest force for good which exist in such indebtedness.

At present we do not know in America whether the Interallied Indebtedness can be used as a means of settling the difficulties in Europe or not—but it would clearly seem our duty to Europe and to ourselves to find out. There is no way of finding out except as the Debt Funding Commission may be willing to take up the question with the other two creditor nations—Great Britain and France—and study the situation.

If there is any way to use the Interallied Indebtedness effectively, the three creditor nations should certainly be able to find out. If a plan which seemed effective were developed, it could then be taken up with the debtor nations and whipped into shape through negotiations with them, so that it would meet the views of all concerned and then be carried to the neutral and other nations of Europe.

During such negotiations, our Debt Funding Commission could properly take the position that it did not believe that the people of the United States would consider any plan which might carry with it any readjustment of the Interallied Indebtedness, even if it were to be undertaken in like proportion by the other two creditor nations, nor any plan which did not carry with it a final settlement of the Reparations question and all of the problems surrounding it, and that would not also require the reduction of the military throughout Europe and the re-establishment of peace.

If this were found to be impossible of accomplishment, (and no such negative position should be assumed except after the exercise of great patience and perseverance) then the Debt Funding Commission would be in position clearly to satisfy the people of the United States that the time had not yet come when we could take any effective part in bringing about a settlement in Europe, and that evolution would have to proceed to a further point without our help.

The knowledge gained through such negotiations would be of inestimable value to this country and might make it possible for us to be

effective later, nor would we jeopardize the interests of the United States in any particular because of having undertaken such negotiations.

On the other hand, if the Debt Funding Commission found that it would be possible on some certain known basis to fund the Interallied Indebtedness in conjunction with a final settlement of Reparations question and the elimination of militarism throughout Europe, the American public would be in position to decide with intelligence wherein its best interests lay.

At the moment they cannot visualize such a proposition. But if the Debt Funding Commission were in a position to present to Congress a clean-cut statement having sufficient detail on both sides to warrant a complete undertaking of what could be done, the American people could be depended upon to render the right decision.

What possible harm could come to this country through such negotiations? And what a wonderful thing it would be for the world if they were successful.

Insofar as mere money values are concerned, can anyone say what we could not afford to give in return for a settled peace in Europe? Our foreign trade losses in case no settlement is reached could be enormous and might extend over a period of many years. During such time the ability of the European Nations to make payments to us on the Interallied Indebtedness would be practically nil.

If we had it entirely within our power to say whether we would have a peaceful Europe today—on a basis which would be as permanent as permanency can exist in human affairs—a peaceful Europe which would make it possible to continue a growing foreign trade on a safe basis and enable us to receive in a comparatively short time some certain percentage on the Interallied Indebtedness, or whether we would allow the present conditions in Europe to continue to a point where our Foreign Trade was shattered for a period of years, during which period and for a long time afterward the European Nations could not pay us anything that they owe us—which way would we choose even if it required some readjustment of the Interallied Indebtedness to secure peace?

Does it seem as though there would be any question whatever as to which way is better for humanity or which way is better for the people of the United States? Is there any reason whatsoever why we should not endeavor to find out whether it is within our power to solve the European problems by means of the Interallied Indebtedness? Can any harm to anyone or to any country develop that does not exist today, if the Debt Funding Commission should take up the matter with Great Britain and France and find out that it could make no headway? Would we not, on the other hand, be better resigned to a policy of inaction, and would we not know with much greater certainty that it was the right course to pursue? And would we not therefore, as conditions develop, be better able to find a means to be helpful in the future than is possible if we are not fully informed as to the exact situation which exists?

On the other hand, have not our people the right to know just what part the Interallied Indebtedness plays in maintaining the turmoil that exists in Europe? And if there is some way in which the Interallied Indebtedness can be used so as to bring about peace, even though it might mean some readjustment of such indebtedness, have not our people the right to know the facts, so that they can render their decision as to what action they shall take based upon such facts?

Is there any politician in the United States who has the right to demand that our people be kept uninformed as to what forces lie within the Interallied Indebtedness on any basis whatsoever? If not, why should anyone consider for a moment what any politician may choose to say concerning the matter?

We cannot suppose for a moment that any such negotiations as have been suggested can be carried on successfully without a great *will to succeed* and without the exercise of tremendous patience and perseverance. No settlement of the trouble can be brought about without careful, painstaking and intelligent negotiations. And certainly no European country is in as good a position to lead negotiations with calmness, deliberation and power as is the United States of America.

Have we, who criticise Europe so freely, ever stopped to think of our own political impotency? Of what possible value is it to our people to have a Commission of honorable and able men appointed by our President and approved by Congress, such as constitutes the Debt Funding Commission, so limited in its powers that it cannot accomplish that for which it was created?

The powers of this Commission to negotiate should be enlarged by Congress and it should be given to understand that its proper acts will be approved. What business organizations could exist if no powers of action were delegated to its officers and if they could never tell whether or not their Board of Directors would approve their operations?

Because Congress must ratify treaties under the Constitution is no reason why it should not extend to Commissions sufficiently wide powers of negotiations to enable them to function and to carry out special matters.

Whether Congress chooses to increase the powers of the Debt Funding Commission or not, the possibility of catastrophe in Europe is so great that the Commission should enter without delay into negotiations with the other creditor Nations, Great Britain and France and ascertain what can be done to restore peace.

The United States inaugurated and successfully carried out a great disarmament conference that limits the size of the navies of the principal powers of the world. To make this achievement effective, it must be followed by a military disarmament conference that shall be equally successful.

Up to the present time, this has been impossible to bring about—but now Europe's necessity is so great that a wonderful opportunity is open to America to obtain the co-operation of the European Nations in an effort to destroy militarism.

After accomplishing so much, are we in the United States going to be satisfied to let this great opportunity pass merely because we have not the courage of endeavor?

Why Successful Business Men are Creating Living Trusts

By J. R. Nutt
President The Union Trust Company

Every normal and successful man naturally wants to manage his own financial affairs. And why shouldn't he? Is there any good reason why a man in the prime of life and success should turn over to a trust company his personal investments, which he has taken such interest in accumulating and in which he feels such a keen sense of ownership and independence? Something in him revolts at the very thought of relinquishing the slightest authority over this property. He wants it where he can watch it, sell it on an instant's notice, borrow on it without delay. He wants to *control* it just as he always has—with no one standing between him and it.

That feeling, more than anything else, prevents many men from enjoying the advantages of a living trust. They do not realize that in creating such a trust they need not surrender one bit of their freedom to do exactly as they please with their property. Nor do they realize in what numbers the shrewdest business men are adopting it for its very obvious advantages both to themselves and to their families.

What Is A Living Trust?

Many people confuse a living trust with a trust provided under the terms of a will. It is not the same thing at all. A trust created by will takes effect at death. A living trust takes effect at once, during the lifetime of the creator. It is simply a written agreement under which money, stocks, bonds, real estate, mortgages or any other property is placed with a trustee under the terms of the trust agreement to be taken care of by the trustee and then turned back either at a specified time or at the option of the creator of the trust, to himself or to other persons named in the trust agreement.

Such a trust can be altered or terminated at any time at the sole discretion of the person creating it. Income can be made payable to the creator of the trust or to another person of his designation or it can be split up into several incomes to be paid to different individuals.

Furthermore the plan of distribution of income can be changed at any time as well as the provision for the ultimate disposition of principal.

J. R. Nutt
President, The Union Trust Co.

Full authority over purchases or sales of securities or other property can be reserved by the person creating such a trust.

In other words, a man can establish a living trust with money which he wants invested or securities which he already owns, or real estate, and he can have absolute control over all of this, change or terminate the trust at any time he wishes, receive the income himself or have the income payable to his wife or as many others as he designates, including himself.

What, then, are the advantages of such a trust?

First: It places at the disposal of the individual the dependable services of an ideal type of financial secretary—one who never leaves to get married, nor is absent on account of illness, nor is removed from duty for any cause whatsoever. The trust company takes over at once, all of the bothersome detail involved in the care of securities or property, attends promptly and systematically to presenting coupons for payment promptly as they come due, collects notes, receives dividends, handles all details of purchases, sales or exchanges of trust investments, takes note of stockholders' and bondholders' rights and advises the owner as to the facts which should affect his decision. In the case of real estate held in trust, it handles all negotiations with tenants, attends to repairs, insurance, and all other duties of thorough management.

In addition to disposing of all such operations and leaving the owner free simply to exercise such authority in general directions as he may wish to reserve to himself, the trust company keeps a complete and separate set of accounts for each trust, showing accurately all income just as it has to be reported in tax returns and portraying clearly every transaction which has taken place. At regular intervals complete statements of these transactions, consisting of actual photographic reproductions of the book-keeping records themselves are submitted to the individual so that he may review easily and quickly the exact condition of his affairs. And each year at income tax time there is drawn off a condensed statement of income tax advise giving to each beneficiary of a trust just what income should be reported in his return.

In contrast to the more or less unsatisfactory method in which the private business matters of the average individual are handled this certainly offers an ideal source of relief.

Second: Many men give members of their immediate families or other relatives allowances which they are under no legal obligation to give. Such allowances as are over and above the generally accepted responsibilities of family support are the type I have in mind. For instance, allowances for support of

aged parents, college allowances for the young man or girl at school, or personal allowances to a wife meant purely for her own enjoyment.

It seems to me that it is perfectly legitimate and in good faith that this type of personal allowance be set up as separate personal income and treated as such from an income tax standpoint and the ideal method of establishing such incomes is through the creation of a living trust from which these incomes are to be paid to the several individuals by the trust company. Entirely aside from the income tax consideration of such an arrangement, think of the convenience of having these allowances disposed of regularly and systematically through a trust company to the individuals involved instead of having always to attend to it personally.

And then, too, consider this phase of it. There is no better way to impress upon a young man at college that he can expect regularly just so much and that he must manage his own personal affairs to conform strictly to that limit, than through this trust arrangement.

In addition to the definite sense of restriction which attaches to having these personal incomes issue from the bank instead of father's check-book—which is assumed always to be a more or less elastic thing—and the convenience of the arrangement, the legitimate income tax reduction available through this plan is a very substantial item in many cases.

THIRD: Consultation with hundreds of successful business men regarding this subject convinces me that a point of considerable embarrassment, which keeps men from entering into living trust negotiations, is the assortment of poor investments which they have made for themselves and which they do not feel they want to turn over to a bank in connection with such a trust. On the other hand most men feel, despite their mistakes of the past, that they are quite competent to make their own investments in the light of their experience.

Let us assume that the individual is just as competent to select his investments as a trust company. There are, neverthless, some marked advantages in having these investments bought through a trust company. For instance, the advantage in price which a strong trust company purchasing securities in large blocks can frequently secure to a trust account often off-sets by many times the very nominal fees charged for handling the trust. There is a mistaken notion on the part of some people that trust companies somehow or other make a profit on securities which they put in trust accounts, especially if these are securities which are being sold by the bank itself. This is just one of those pernicious ideas that springs out of hearsay and prejudice and has absolutely no foundation of fact. I can speak very positively for the Union Trust Company, and, to the best of my knowledge, the same will apply to all trust companies, in stating that not one cent of profit is made from investments placed in trust accounts. The only remuneration to the trust company is the very nominal fee which it charges for its services as discussed later on in this article. This very fact that all investments made for trusts are placed in these accounts at actual cost to the trust company should appeal very attractively to the man who may have suspected that the trust company could buy on a basis to show a profit to itself in placing securities or other investments in trust accounts.

This only suggests one of innumerable benefits which accrue to the trust account from an investment standpoint. Setting aside again any advantage which the trust company may have over the individual in making investments, there can be little doubt as to the better facilities of the trust company for keeping constant watch over all the conditions affecting investments after they are purchased and knowing when to change. Ask the average man to give you a prompt report on up-to-date, underlying conditions affecting all of the securities in his safe deposit box, or for that matter question him with regard to all of the facts which a bank wants to know about his real estate investments and you will immediately see how inadequate are his sources of information or at best how spasmodic and intermittent his efforts to check up on this information. Vitally important as the original selection of investments is, it must always be kept in mind that conditions are continually changing. Investments are not static. The property holder is never secure when off guard for any length of time.

But the very machinery which a large trust company has set up for keeping constant check on all of the real estate holdings and investment securities of its trust accounts, places it in a position of strong advantage over the individual in making original selections. And, bearing in mind that the man who creates a living trust may reserve full authority with regard to his investments, there would seem to be little question as to his benefiting from the information and investment counsel which a strong trust company, with all of its sources of information, can give.

Another point. No individual—officer or employee—of this trust company has any authority whatever to invest a dollar of trust funds. This responsibility rests solely with the trust committee, which, in the case of the Union Trust Company, consists of some of the ablest business men and attorneys in the community who meet regularly every week throughout the year with a group of senior officers of the bank, directly in touch with and responsible for the operating work of the trust department, and consider in minutest detail the placing of all trust funds.

Whether the investment preferences of the individual are for real estate holdings, industrial securities or very conservative government issues, such a trust committee, backed up with all of the equipment of a highly organized trust department and strongly supported through intimate relations with all of the activities of a great bank, can certainly render valuable assistance to anyone in building up an estate and safeguarding it in the face of changing conditions.

I am satisfied that this feature more than any other is responsible for the rapidly increasing number of prominent business men who have turned to this type of trust in working out their own investment program.

FOURTH: By creating a living trust now and seeing exactly how it

operates, a man can provide that the same arrangement shall continue following his death for any lawful period which he may specify and with the income payable to anyone of his choice.

This feature makes a very strong appeal. It affords ample opportunity for becoming thoroughly acquainted with the way the trustee handles affairs and on the other hand it affords the trust company the opportunity to become thoroughly familiar with the personal preferences of the individual with respect to his property.

Many men, anticipating the day when they will be gone, are quick to appreciate the advantage offered through a living trust arrangement for acquainting their wives thoroughly with the business-like and dependable operations of the trust company while they themselves are on hand. A woman who has become accustomed to receiving regular income from a trust company handling her husband's affairs in trust during his lifetime will feel the utmost confidence and security in that same arrangement when her husband is gone, and the man who has the opportunity to see how such an arrangement works while he is here will feel the greatest sense of security over the future of the arrangement.

Then, too, there is this further advantage—property left under a will must always go through probate at death, whereas property left under a living trust does not go through Probate Court at all, is not subject to the delays and formality incident to probate procedure and is not open to public record as is all other property in an estate left under a will or to pass under the law.

Fifth: A living trust appeals very strongly to the man or woman who wants to be free to travel during a part of the year. Many a sojourn in California, Florida or Europe has been marred by worry over personal investment matters, fear of neglect in some important development which may arise during such a prolonged absence. There are many prominent Cleveland people who would not think of going South for the winter if they could not have the assurance with respect to the care of their personal business affairs, which they now enjoy as a result of their living trusts.

What Is the Cost?

A word with regard to the cost of a living trust. There is a great deal of misconception on this point. As a matter of fact the cost is so small as to be almost inconsiderable. Rarely does it ever exceed 5% of the income. For instance, if $100,000 be left in trust and the income earned is $6,000 per year the entire cost would be $300 per year—little enough indeed when it is considered that an estate of $100,000 is efficiently and dependably managed, carefully watched, income distributed regularly, accounting accurately done and the best investment and business judgment brought to bear in its safeguarding.

In case distribution of principal is made after the death of the creator of the trust there is a distribution charge of 1% of principal payable at the time of distribution. This, it may be added, is less than one-half the usual executor's fees for the same duties of distribution.

Whereas a decade or two ago trusts were employed largely by men of great wealth, today the man of more moderate means is becoming attracted to this same sound, business-like method of providing for his personal investment affairs and the future welfare of his family. Any fund, securities or real estate, amounting in principal to $20,000 or more, offers the basis for a very satisfactory living trust arrangement.

Professional men by hundreds, who have come to realize that their abilities lie in the fields of their chosen professions and not in the handling of their investments, have found this type of trust ideally suited to their needs. Women with property have found in it the same degree of satisfaction. But probably the most rapidly growing class of individuals to see and make use of the advantages of this modern form of corporate trusteeship consists of the practical type of successful business man who knows so well the hazards which beset investments and who is quick to accept any responsible assistance available to him.

Probably the chief reason why the living trust has made such a strong appeal to men of this type is simply that it puts within their reach a means of applying to their own personal affairs the same financial safeguards and the same advantages of stable and permanent organization which mean so much to them in their business operations.

If the term "Living Trust" has only a vague, intangible meaning to you, we sincerely urge you to read the foregoing explanation—*for your own benefit and the protection of yourself and those you hold dear.*

Radio as a Business Stimulant

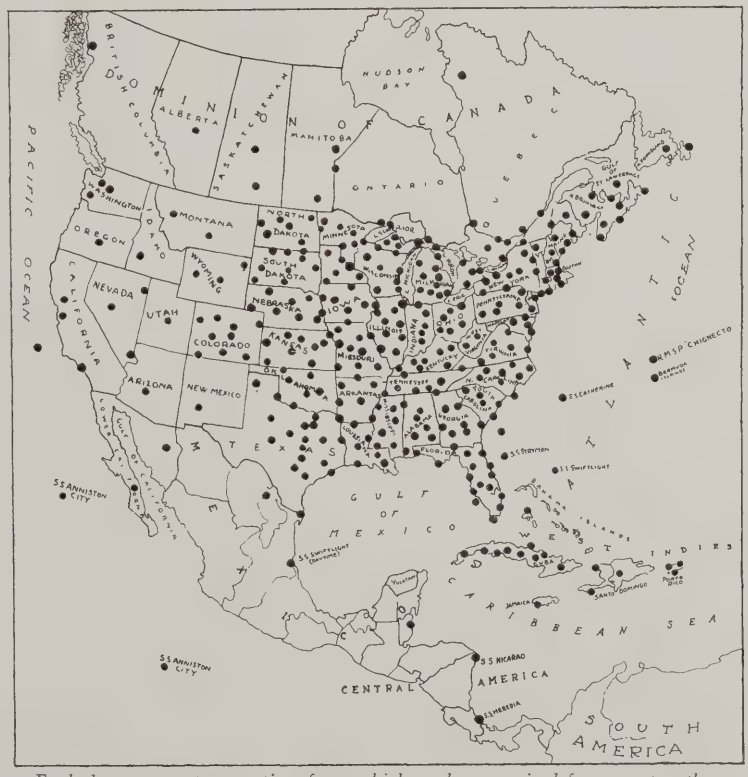
Perhaps this will answer your question, "Is radio a fad or a substantial contribution to business progress

Many of our friends have asked why The Union Trust Company is operating a radio broadcasting station and what that station does—what practical service it performs. We are accordingly giving here a brief outline of the commercial significance of our broadcasting station, which will explain its uses and its purposes

FOUR times a day "WJAX" broadcasts market quotations on iron and steel, live stock, liberty and other bonds, stocks, fruits and vegetables, dairy products, hay, grain, flour, feed and the like. It also broadcasts a daily housewives' market list which gives current retail prices on foods, vegetables and dairy products.

On Tuesday and Thursday evening "WJAX" broadcasts the mammoth organ of the Cleveland Public Auditorium and other musical programs. But this is purely incidental and entirely beside the real purpose of the Union Trust broadcasting station.

The Union Trust Company installed its radio service because it felt that the broadcasting of financial news and market quotations would prove a business stimulant to the entire surrounding territory—a stimulant that would eventually result in better and sounder business.



Each dot represents a section from which we have received from one to a thousand letters acknowledging the Radio Service of "WJAX—The Union Trust Co., Cleveland"

In spite of the tremendous industrial development of this district, the farmers still operate our largest business. But, owing to physical limitations such as distances, roads and means of communication, farmers have been unable to be business men in the modern sense of the word. While the markets of the world have been managed by business men, the farmers supplying those markets have remained, to a large extent, simply—farmers.

Yet it is evident that anything which will stimulate the farmers—the men who run our basic business

$50,000.00 Available

Available to Whom?

To promoters of new and questionable business enterprises? *No.*

To some ambitious young man who may have married your daughter and is burning with enthusiasm to get into business? *No.*

To your wife or family for their assured support and for whatever emergency may arise in the future? *Yes, exactly.*

And to no one else.

If you are carrying $50,000 of life insurance—or any other amount—and have not thought how it can be left available to your wife for her and your children—and yet be so protected that it will not be available to anyone else—we urgently suggest that you ask us to send you a specimen copy of our life insurance trust agreement, which meets that problem squarely.

Under this agreement the life insurance which you are now carrying can be so protected that at your death the principal will be soundly invested and both the income and principal will be available as needed by your wife or family in such amounts as they may need under varying circumstances, without risk of impairment either through the appeals of clever salesmen or well-intentioned friends or relatives.

It is claimed that more than 90% of all life insurance left outright to beneficiaries is dissipated within six years.

Better take ten minutes to read over this insurance trust agreement. Mailed on request.

The UNION TRUST Co.

CLEVELAND

The Oldest Trust Company in Ohio

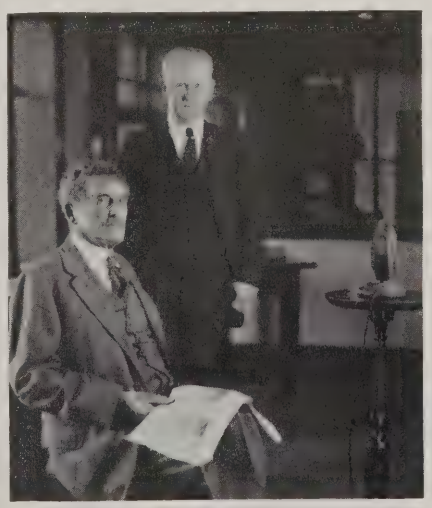
This farmer is no longer at the mercy of the buyer—he knows prices—thanks to radio

—to adopt better business methods, will have a wholesome effect not only upon the farmers themselves but upon the entire economic fabric of the country.

Many farmers, of course, live on paved roads, have telephones and automobiles and take newspapers. But, after all, a great majority still lead more or less of a backwoods life. There are thousands upon thousands of farmers' homes located on dirt roads, with poor telephone service, inadequately served by any newspaper and practically cut off, especially during the winter months, from the business world. There is where radio steps in and begins the work of making a business man out of the backwoods farmer.

In the old days a farmer who lived in a remote district, away from a paved road, miles from any village, never knew, before he went to market what price he ought to get for his produce. He considered it largely a matter of luck. He was more or less at the mercy of the buyer. He could judge only in the most general way as to whether the commodities which he had for sale were "up" or "down" and whether the time was ripe for selling. Naturally, this difficulty did not tend to make him a good business man. He knew little about business methods. He bought and sold without forethought and without acquainting himself in advance with current prices.

Now, this farmer—hundreds of him—has a radio receiving set in his home. Every day he learns from "WJAX" the market quotations for that day on grain, flour, hay and various other market products. He also gets quotations on the things which he may have occasion to buy, such as fertilizer, seeds and the like.

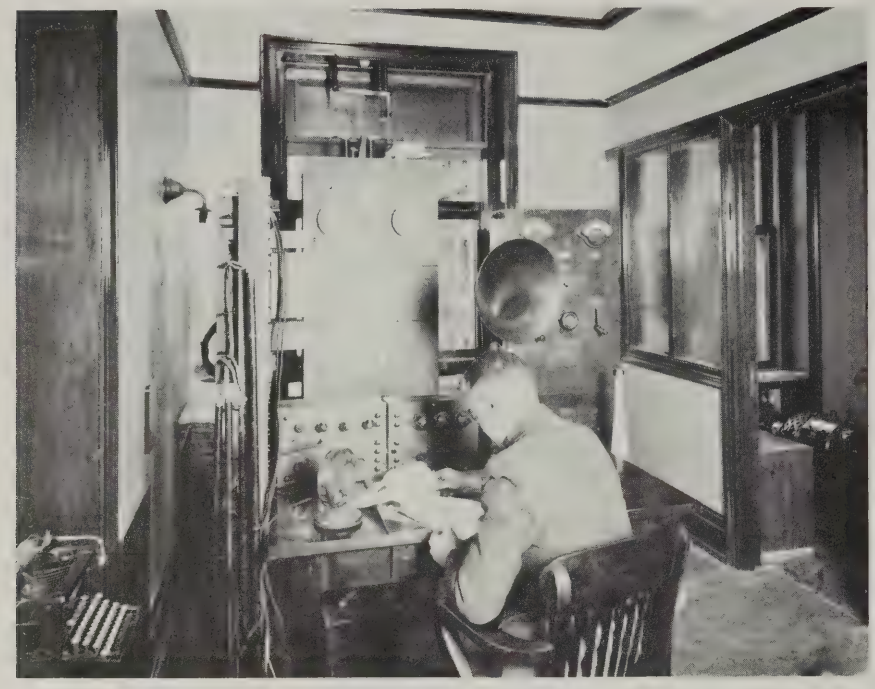


Hon. Myron T. Herrick and J. R. Nutt officially launch "WJAX" into the air

TODAY when this farmer goes into town with things to sell, he knows in advance about what he ought to get for them. He is no longer at the mercy of the buyer. He has become a business man in his selling methods.

Conversely, when he goes to buy feed at the mill he knows about what he ought to pay for it. He has become enough of a business man to insist upon buying at the right price.

It makes no difference whether this man lives in the most remote section of his district, miles from a paved road and possibly even without telephone service. Radio supplies him with the daily information which makes it possible for him to use business methods in his farming operations.



A glimpse into "the works" of the radio broadcasting station of The Union Trust Co.

This description of what radio has done for the down-state farmer is not in the least theoretical. Hundreds of letters which pour into us from farmers every week testify to the extremely tangible benefits which these farmers are deriving from receiving market quotations and financial news broadcasted from the Union Trust Company.

A farmer in Bellville, Ohio writes:

"I wouldn't know how to do without your daily market reports. I like and am most interested in the poultry, hay and grain markets, also live stock."

The Ashland County Farm Bureau writes from Ashland, Ohio:

"We are making a wide use of the markets as received from your station.

"The livestock markets, Cleveland Hay and Grain, the poultry, butter and egg, also the Toledo Grain Close markets are in constant demand by a large number of individual farmers in this territory who call into this office to receive them.

"It is also through the use of these markets that we are able to keep the various farmer-owned elevators in touch with the daily markets."

A farmer from West Richfield, Ohio writes:

"As we are in the garden business the prices on vegetables and fruits are a great help to us."

A farmer in Tiffin, Ohio writes:

"We listen for you every day for livestock, market and weather reports. We look to you for our market quotations as we ship our own hogs, sheep and calves to Cleveland."

A farmer near Akron says:

"I am gratified to inform you that I appreciate your daily market reports greatly as I am kept in constant touch with the vegetable markets in Cleveland and this has already saved me much money."

A ranchman from Chatham, Ontario says:

"I hereby acknowledge a real benefit from listening to your stock market reports each morning at 9 a.m., especially the livestock and grain market reports which naturally interest me most, as I am situated on a ranch one mile north of Chatham, Ontario."

These letters are typical. They come from all parts of Ohio and nearby states and they would seem to be proof positive of the fact that radio, used as it is by the Union Trust Company, is stimulating the farmers in this territory to better business methods.

The merchants in the smaller cities are using the radio just as extensively as the farmers.

A merchant in Crestline, Ohio writes:

"We have been receiving your daily reports for some time and appreciate them very much.

"A great many of our customers come into our store every morning to hear these reports."

A letter from Caledonia, Ohio reads:

"I want to express my appreciation for the market service that is broadcasted from your station, especially the Cleveland livestock Market report which serves the members of the Marion County Live Stock Company, who are notified of the market trend by telephone."

A merchant in Ostrander, Ohio says:

"I am making arrangements with 100 friends to give them the markets that they are interested in, by phone."

An elevator company in Metamora, Ohio writes:

"We are receiving your daily market reports and particularly the Cleveland, Toledo and Chicago grain, hay and seed markets, and we trust you will continue to broadcast these markets."

A merchant in Cadiz, Ohio says:

"I wish to express my good will toward you people in regard to the excellent radio broadcasting service you are giving us. I am interested in and benefited by the markets relative to fruits, vegetables, butter and eggs."

The following rather laconic message was received from an Akron cattle dealer:

"I appreciate your daily stock market report as I am interested in live stocks, etc., and an intimate knowledge of live stock quotations has saved me money."

Many banks are installing radio receiving sets and posting daily market quotations as a service to their customers.

"We have just installed a radio," writes a bank in Mt. Sterling, Ohio, "primarily to get the market reports. We have for a number of years been getting this over the wire and were at the mercy of the sender in that we got a complete report only occasionally."

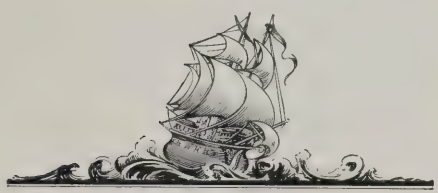
A bank in Jeffersonville, Ohio writes:

"We depend upon your market reports and devote about forty minutes each morning listening in and making a copy of U. S. Bond quotations, foreign exchange, live stock and so forth. Many farmers come in to listen to reports for themselves. Our radio service has brought us lots of business."

These letters give a rather striking picture of the effect of radio upon the rural community. Farmer, merchant and banker—they are all getting down to cases as far as prices are concerned and doing business in a businesslike way.

This cannot help but have a beneficial effect upon the entire territory served by Cleveland. In place of the old-fashioned, haphazard, easy-going methods of buying and selling which formerly pre-

(*Please continue on page 24*)



Trade Winds

It is our desire to make this publication an occasional and wholly informal reflection of the current of Business thought and acheivement, dealing with all the many angles of the Business Machine without bias or restraint.

Since "Trade Winds" will at times partake of the nature of a forum, The Union Trust Co. does not neccessarily endorse views, opinions or statements contained herein except such as bear the authorship of our officers.

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Cleveland, Ohio

Business Conditions

By C. L. Bradley
Vice President, The Union Trust Co.

Feb. 9, 1924

I do not regard it as our function in these pages to give a detailed analysis of individual industries, but rather to sketch the "net" as we see it, thereby compressing the fundamental message of an extremely complicated picture into relatively few words, while setting a rough chart or course for the period under discussion.

Six or eight weeks ago, though there was a high degree of optimism regarding 1924, nevertheless a few more cautious souls tempered their optimism with a caution which, in some few instances, amounte d almost to fear.

But during the past few weeks, the situation has materially clarified —and at a pace, which while rapid, has sacrificed nothing by its speed of recovery from mid-winter quiet.

The picture today is one of practically unanimous optimism. Certain industries, of course, owing to conditions latent within them, are not as yet feeling the full pressure of the growing pace, but, in the main, business now has its feet upon solid ground, and the first six months of 1924 give ample promise of prosperity.

Every business period is characterized by some policy peculiar to it. The present period is no exception. Wholesaler, retailer and ultimate consumer alike are buying for today only. This policy is well-nigh universal and in many cases it is exaggerated to the extreme. Manufacturers in many lines report that business on their books at any single moment is insufficient to warrant material increase in production schedules, yet this moment-to-moment type of business continues to pour in by mail and telegraph at a uniformly high rate and with slowly swelling volume—though in small individual units.

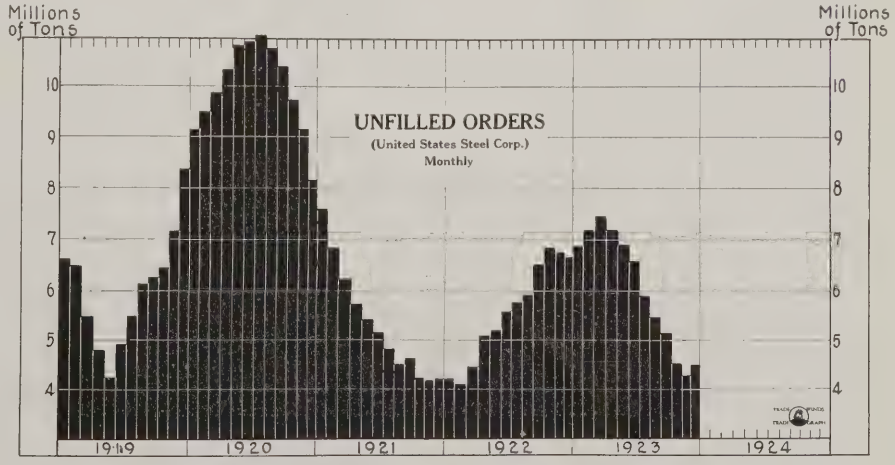
Anticipatory orders seem to be a thing of the past. Even in industries accustomed to ordering weeks or months in advance, the same ultra cautious buying policy prevails, to a somewhat lesser degree perhaps, though with sufficient force to cause the manufacturer considerable perplexity, forcing him in turn to adopt the identical hand-to-mouth policy towards his sources of supply.

This popular method of purchasing, peculiar to the present moment, puts a new type of strain upon productive facilities, for it throws the entire burden of forecasting upon the producer and makes him—and not the wholesaler or retailer—bear the brunt of storage charges and inventory overhead, while at the same time it removes the reservoir or buffer of supply which is normally maintained against any material increase in demand.

This failure to maintain any "slack" between demand and immediately available supply would normally be a cause for concern, lest a sudden rush of demand should cause a stampede with a recurrence of 1920. But today there is a new type of buffer which operates to some extent to replace the lack of stocks in the channels of distribution. I refer to the fact that orders in the majority of industries are of sufficient volume to permit the manufacturer to maintain his operating force at an efficient point, with a skeleton organization sufficient to render quick expansion possible. As a result, any considerable buying pressure could be taken care of with fair dispatch and would not reproduce the runaway condition of 1920 with its unnecessary duplication of orders.

This present condition of extremely nice balance between production and demand is illustrated particularly in the steel industry, where the working force is organized and operating efficiently with reserve capacity sufficient to give prompt attention to present day needs, yet with sufficient elasticity to care for an increase in business of considerable volume.

There seems to be a tendency, however, upon the part of both wholesaler and retailer to place undue confidence in the ability of the manufacturer to produce quickly and economically, and this overconfidence may tend to increase prices, for, should a considerable



This diagram depicts the encouraging and significant fact that unfilled orders of the United States Steel Corporation have definitely turned upward. Steel bookings steadily declined from March through November. They fell to a level nearly as low as that reached at the bottom of the 1921 depression. December brought a gain and all indications point to further recovery. Expanded buying for railroad, automobile, building and miscellaneous needs has taken place

buying flurry develop, it might cause a mild "boom condition," when the wholesaler and retailer discover that "immediate deliveries" are a thing of the past.

But this same nation-wide purchasing policy, coupled with an almost universally satisfactory amount of business, is likewise exerting a stabilizing effect on prices, which appear to be maintaining an unusual degree of equilibrium—all conditions considered—with no hysterical fluctuations either upward or downward, although the tendency is for a strengthening—not necessarily an increase—almost all the way down the line. And this tendency will probably be emphasized if business increases and "immediate deliveries" become less universal.

While the anticipated quietness of early January was realized, as indicated by the comparatively large number of idle freight cars of all sorts, business which developed in the latter part of January absorbed these idle cars and with few exceptions all lines reported materially increased activity. Such expressions as, "January was our best month since July," "The best month in three years," "November and December registered a remarkable recovery and January equalled either of these months"—such expressions multiplied in many industries indicate that business as a whole is entering the new year with confidence but with caution as evidenced by the purchasing policies spoken of above.

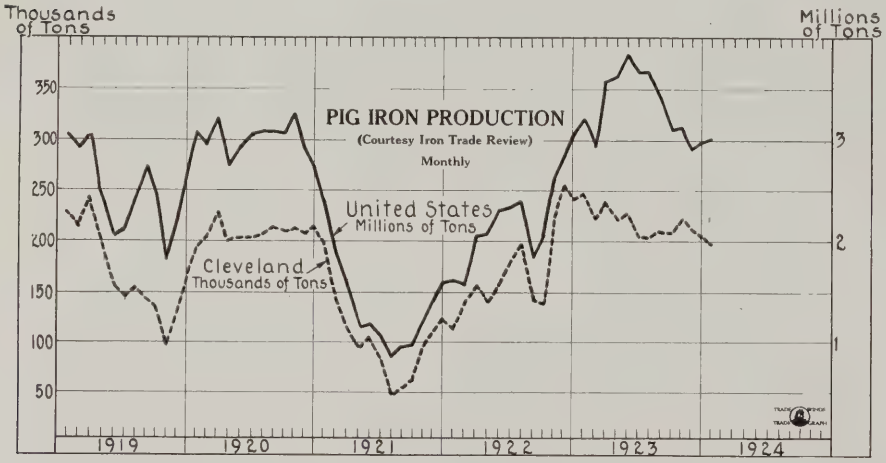
Even the oil industry is feeling better and the price is stiffening.

The coal industry reports increasing production and a steadying price.

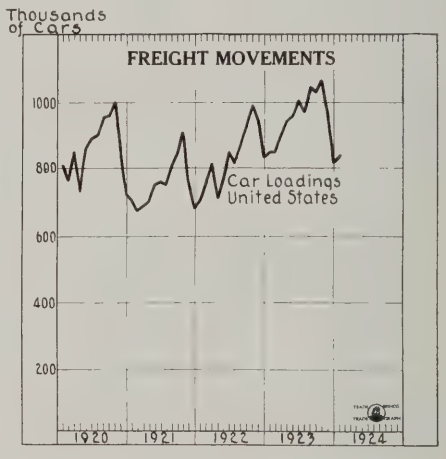
The automobile industry is preparing for another big year.

The varnish industry—an excellent index of general manufacturing—reports an excellent outlook, with manufacturers of varied materials ordering heavily, though cautiously.

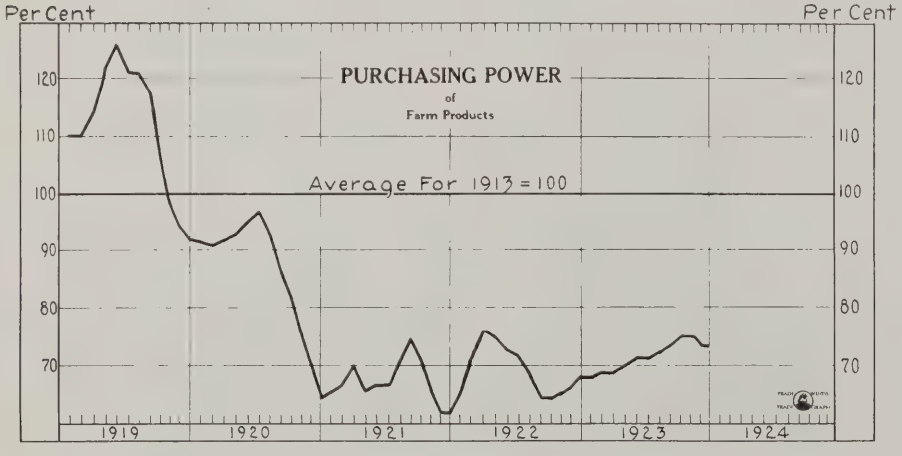
With few, if any exceptions, the tendency of every industry is in the



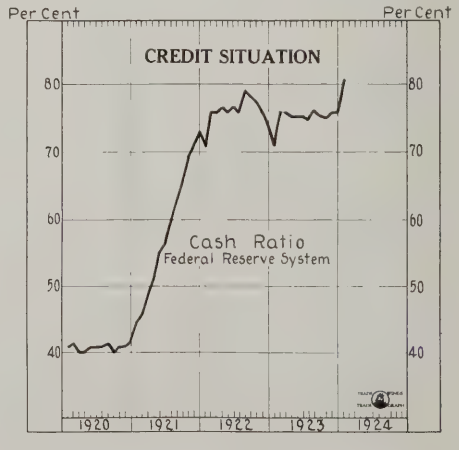
The broadening movement in iron and steel is reflected in the rise of January pig iron production. Total output for the month in the country was 3,017,444 tons, compared with 2,912,519 tons in December. The daily average production was 97,337 tons, showing the first gain since last May. Of great significance, since the first of the year, 17 pig iron furnaces have joined the active list. During January, pig iron production in Cleveland declined slightly, due to repairs under way on one important blast furnace



Freight movements in the country dropped sharply early in January, but soon recovered. During the first three weeks of the month, car loadings were less than 1½ per cent below the same period of 1923, when industry was actively expanding



At the beginning of 1924 the purchasing power of farm products was 73 per cent of the 1913 average. This was the highest for any New Year in four years. It was an increase of nearly 8 per cent over 12 months before. Since 1921 the gap between prices for farm products and general commodities has narrowed greatly. Farm prices in December were only 4 per cent under the general index. The spread was still further closed in January with sharp advances for corn and wheat



During January the ratio of cash to note and deposit liabilities of the federal reserve system increased from 73.8 per cent to 81.3 per cent. Banking reserves increased more rapidly than the normal expectancy for the season. Huge gold imports are largely responsible

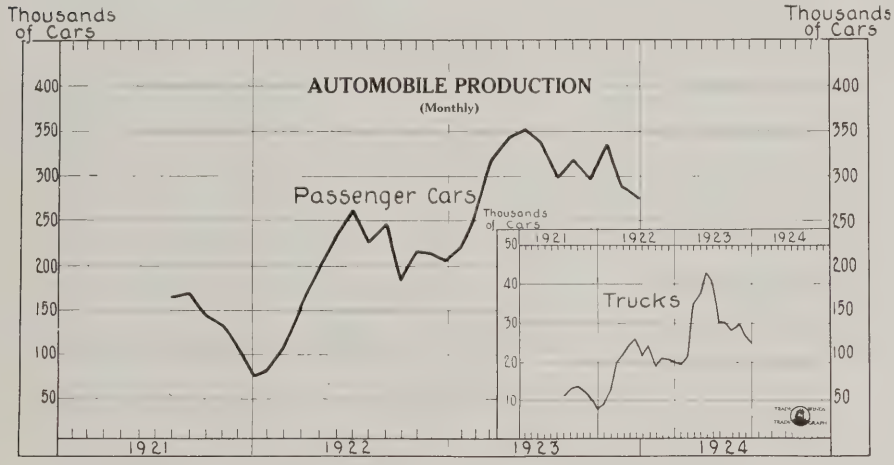
right direction. The pulsing curve, which characterized the latter part of 1923, has straightened out and apparently indicates a steady flow of purchasing power. Uncertainty has given way to certainty and, barring unforeseen conditions, we feel that the next few months should be a period of intense activity with almost universal employment, yet with sufficient natural economic brakes upon the situation to preclude the possibility of stampede.

Confidence, even in lines temporarily depressed, is increasing. The more optimistic are discounting election uncertainty and are prophesying good business throughout the entire year. While at this moment we would hardly care to become party to this rather far-flung prophecy, there can be no question but that, with credit resources ample for practically any contingency, with tax reduction in sight—if the public will forcibly express its desires—with prospects for the building industry and for the farmer increasing with every week, with wages, savings and purchasing power at high peak and additional railroad purchases in sight—particularly for track and roadbed improvement—there is sound reason for optimism extended over a comparatively long period.

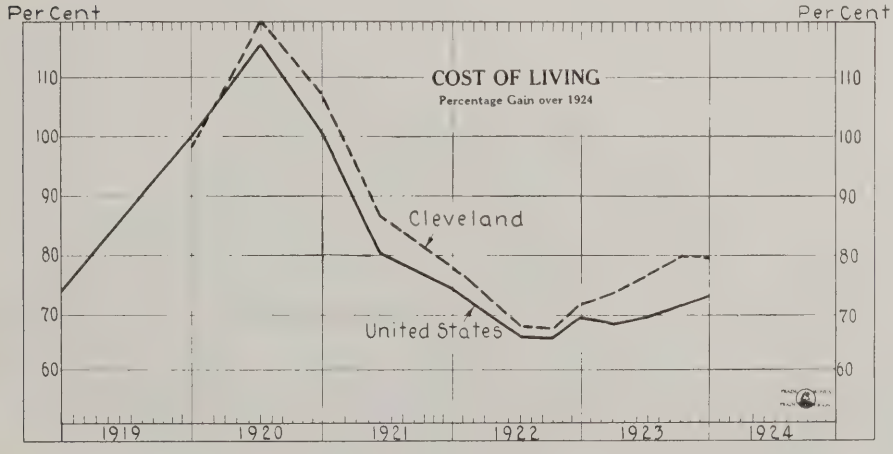
Europe, of course, is still in a state of turmoil. However, it seems to the writer that this country will be nearly self-sustaining for some time to come, although by no means do I belittle the necessity of an early adjustment of European conditions, since obviously some degree of European stabilization is essential if we are to strengthen and broaden the foundations of our domestic prosperity and insure an increasing elasticity for our markets.

The complaint of narrowing profits is founded on ample fact. We are unquestionably entering a period of extremely intense competition with its inevitable companion—close profits. The day of the salesman, as contrasted with the production man, is again upon us, and at this time we cannot accent too strongly the necessity of painstaking sales as well as purchasing guidance. Conditions of the next few months will demand the utmost experience and skill in both departments. While the manufacturing department will be called upon to maintain an efficient production schedule—without piling up an unprofitable inventory of either raw or finished materials—the burden of prosperity seems likely to be in the lap of the sales department.

In short, that period toward which we have all been looking for several months, that period of comparative stability, normalcy and equilibrium seems to have arrived. It is an opportunity which should be accepted with aggressiveness, though with an eye constantly on the future in a spirit of conservative optimism.



January motor shows, displaying many improvements and refinements, have stimulated automobile sales and output. Although 1923 production of 4,014,000 passenger cars and trucks gained 50 per cent over 1922, a number of major producers are planning increased schedules for 1924. Production programs for two companies alone, call for nearly as many cars as the entire industry made in 1923. Output has been mounting steadily since the first of the year and January's record exceeded December and January one year ago



Next to Detroit, it costs more to live in Cleveland than in any of the 19 leading cities in the country for which comparative living cost data have been compiled by the bureau of labor statistics. Living costs in Cleveland are 79.6 per cent over 1914. This is more than 8 per cent higher than the average for the entire country. However, it is 6 per cent below the Detroit figure of 84.7 per cent above 1914. Cleveland food costs are slightly below the country's average. Rents, clothing, fuel, light and other items are much higher

Although the wholesale commodity price level averaged 3.3 higher in 1923 than in 1922, bank clearings for the year gained 5.2 per cent. Clearings outside of New York City gained 14.4 per cent, reflecting an important gain in the physical volume of trade

English Business Conditions

By Barclay's Bank Limited
London, England
JANUARY 17, 1924

DURING the past month the Christmas holidays and the uncertainties of the domestic political situation have somewhat restricted business activity, while the continued decline in the value of sterling has also been an adverse factor.

Reports from the provincial centers, however, continue to be moderately optimistic, and the large expenditure being undertaken by the Railway companies is having an appreciable effect, especially in the heavy industries.

Coal output continues at a high level, while the production for the whole of 1923 showed an increase on that of the previous year and was not much below the record year of 1913.

At the commencement of the current year, there was a slight tendency for coal prices to ease but more recently there has been some tendency towards firmer conditions. In South Wales, trouble has arisen in connection with the working of the three-shift system at the docks and some congestion is occurring, while output in the Ruhr continues to improve and a reduction in the Continental demand for coal is not unlikely. On the other hand, however, the ballot of the coal miners in this country in favor of terminating the existing wage agreement has induced a certain amount of speculative purchasing as a precaution in anticipation of the possibility of a stoppage.

COAL PRODUCTION IN GREAT BRITAIN

	Tons
1913	287,000,000
1920	229,000,000
1921	163,000,000
1922	251,000,000
1923 (approximately)	258,000,000
Week ended December, 1923:	
1st	5,719,200
8th	5,728,800
15th	5,956,000
22nd	5,886,000
29th	3,352,800

In the iron and steel market, greater activity is again reported and more plant is being put into operation. Overseas demand is slightly better, while railway orders are reflected in some increase in activity. The production of pig iron in December showed a moderate increase over that of the previous month and although the output of steel ingots and castings was appreciably lower, the figure was still above the monthly average of 1913.

The December output brings the production of pig iron for 1923 to 7,438,500 tons and of steel ingots and castings to 8,488,900 tons, compared with 4,902,300 tons and 5,880,600 tons respectively in 1922, and 10,260,300 tons and 7,663,876 tons in 1913.

Reports from the shipbuilding industry are also more encouraging.

The Returns for the quarter ended December 31st, show that the tonnage under construction in Great Britain and Ireland—1,395,181 tons—is about 124,000 tons more than at the end of September, but there is still a decrease of about 73,000 tons as compared with twelve months ago.

A considerable increase is shown in the tonnage commenced during the quarter, namely: 244,506 tons, as compared with 111,860 tons during the third quarter of the year. The tonnage launched during the quarter ended September 30th amounted to only 66,474 tons, whereas the total for the past quarter reached 114,583 tons.

The cotton trade has been considerably affected by the violent fluctuations which have recently occurred in the price of raw cotton. A better inquiry for piece goods is reported but in most cases few orders result although the Indian trade position continues to show improvement and a moderate amount of buying on Indian account has been in evidence. In the home trade buyers are adopting a somewhat hesitant tone and there seems little disposition in this industry for orders to be placed on a large scale.

The dominating factor in the woolen trade continues to be the upward movement in the price of raw material. Quotations for tops have been advanced but some difficulty is experienced in securing the higher figures and there has been a tendency for business to be restricted in consequence. The order books of spinners, however, are stated to be better filled and cloth prices are tending upwards. Although buyers are still somewhat hesitant, many are beginning to realize that there is little to gain by waiting and there is, therefore, an increasing tendency to place forward orders more freely.

The Board of Trade Returns for December show that imports amount to £109,189,790, Exports (British) to £64,115,189, Exports (Foreign and Colonial) to £10,396,732 and Total Exports to £74,511,921.

The figures for the year in comparison with 1921, 1922 and 1913, are as follows:

	1913	1921	1922	1923
Imports	£768,734,739	£1,085,500,061	£1,003,098,899	£1,098,015,585
Exports (British)	525,253,595	703,399,542	719,507,410	767,328,656
Exports (Foreign and Colonial)	109,566,731	106,919,306	103,694,670	118,572,694
Total Exports	634,820,326	810,318,848	823,202,080	885,901,350

The adverse balance of trade for the past year amounts to about £212 millions but it was estimated by the Board of Trade in 1922 that our invisible exports, after allowing for a payment of £25 millions to the United States in respect of our debt to that country, totalled about £325 millions. The invisible exports for 1923 will probably not have been less than in the previous year and on this basis the net balance in favor of this country for 1923 amounts to a little over £100 millions.

The increase in imports during December is mainly due to increased arrivals of raw materials and as these commodities form the basis of our industrial activity the increase may be taken as reflecting the more favorable outlook which industrialists are now taking of future trade possibilities.

From a Twenty-Dollar Bill to a Million and a Half Business in Ten Years

Being a romance of one Cleveland industry which was built on sand of two kinds

By Mildred Ockert Waugh

Ten years ago, in a dark ill-smelling brick cubby hole in the rear of a small varnish factory, a young man stirred a bubbling mixture of linseed oil and rosin. When the mixture reached 450°, he raked the fire from beneath the kettle and turned his attention to five empty linseed oil barrels. First he painted the heads white, obliterating all trace of the linseed oil markings. Then on the head of each, he marked "*Werner G. Smith, Cleveland. LINOIL, for cores.*"

Five barrels of Linoil! More than half of his total capital of $36 was tied up in stock and obligations out for three times his capital! But there remained, as he found when he changed from his oily overalls into street clothes, $14.68. Sufficient for a trip to Detroit!

So with $14.68, Werner G. Smith in 1913 set out for Detroit to introduce his new product to foundrymen. When he returned to Cleveland three days later, he brought with him orders for all of those five barrels of core oil, with assurances of larger orders should the product meet requirements.

To most people the term "core oil" means nothing. But if you happen to be familiar with the foundry business you know core oil is a vital factor in that industry.

A "core" makes the hollow space inside of a casting. These cores are made of silica sand mixed with core oil. The mixture is itself molded into the desired shape in a "core box," placed in a large oven and baked for several hours at a high temperature. When taken from the oven the cores are hard and can be handled freely and placed in the desired positions in the casting molds.

> The so-called "romances" of modern business of which we read perpetually are almost always off yonder—never near at home. In cynical moments we are inclined to wonder vaguely if all the romance in business is not in the mind of the romancer.
>
> But here is one romance for whose authenticity we will vouch and its address is Cleveland, Ohio. It is a romance of youth and sand—with a little core oil added to give it body.

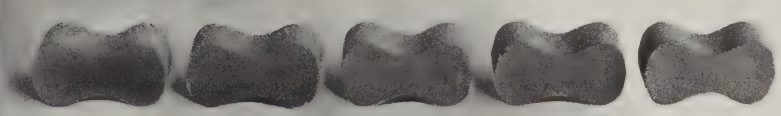
When one considers the number of automobiles in use today and that the motors for these vehicles are all cast and require extensive coring—some, indeed, requiring upward of 100 cores to a casting, and when one remembers that automobile work is only a part of the foundry work requiring cores, some idea of the extent of the use of cores and core-making materials in foundries may be had. Many of the larger foundries use 1,000 gallons of core oil a day.

Mr. Smith had been somewhat acquainted with the foundry trade before he started making core oil. During his years at Western Reserve University, he had sold core sand and the advisability of perfecting and standardizing a core oil was suggested to him.

Success of "Smith's new oil" seemed assured at the outset and soon reorders and new orders were coming in in ever-increasing numbers. Very soon the old varnish kettle became out of the question and the question of financing the rapidly growing business became a serious problem. Foundrymen were accustomed to take 30 and 60 days on their bills, but linseed oil must be bought for spot cash.

"Incorporate," was the advice.

Accordingly, in 1913, The Werner G. Smith Company was incorporated for $10,000. With the books showing the steady increase in sales no difficulty was experienced in selling the stock among Mr. Smith's friends both in and outside of the foundry business. A modest



"Ten years ago in the rear of a small varnish factory—"

Werner G. Smith, and a glimpse of the outgrowth of ten years.

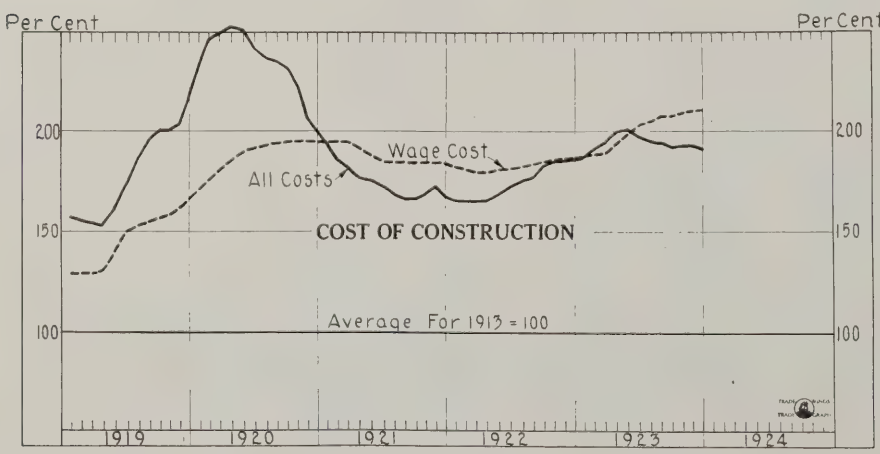
wooden warehouse, a small brick kettle house and a 12 x 14 office were put up at Hird St. and the Nickel Plate Railroad.

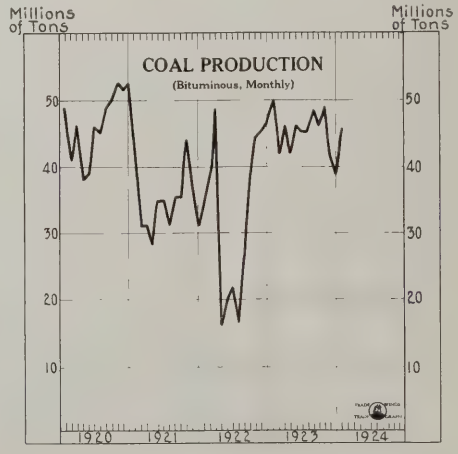
Mr. Smith secured as vice-president a salesman thoroughly familiar with the foundry trade in New York, Michigan, Ohio and adjacent states; he instituted a consistent, effective advertising policy, and soon carload shipments of "Linoil" were a daily occurrence.

The new company continued a steady record of expansion. Kettlehouse and warehouse were enlarged, new equipment added; new salesmen were put on and sales offices opened in other cities.

Today The Werner G. Smith Company is incorporated for $1,500,000, and does an annual business in excess of its capitalization. It occupies a new and completely equipped factory and office building on West 110th street. Its manufacturing capacity is 400,000 gallons of core oil a day. The main warehouse building contains 12 tanks with a storage capacity of 20,000 gallons each. In addition to this there is outside storage capacity for an additional 400,000 gallons.

The company owns its own line of tank cars, which can be loaded and unloaded on the company's switch into or from any of the storage tanks, or can be loaded direct from the 25,000-gallon cooking kettles, merely by the setting of an automatic meter and the starting of an electric motor—which only goes to show that the pot of gold at the end of the rainbow may be waiting close to home—may even be disguised as an old ill-smelling kettle in the back of a varnish shop.





Agriculture *Is* Fundamental!

(*Continued from page 4*)

for a time from $1.10 to approximately $1, the slump meant, for the farmers of the nation as a whole a loss of only six-tenths of one per cent of their income—not enough to effect business as a whole.

While it is true that a decreased income from any one farm product such as wheat is a serious blow to the farmers who are depending on this one crop for their major income, we should keep in mind when considering agriculture as a whole that a slump in any one product does not materially impair agricultural purchasing power as a whole.

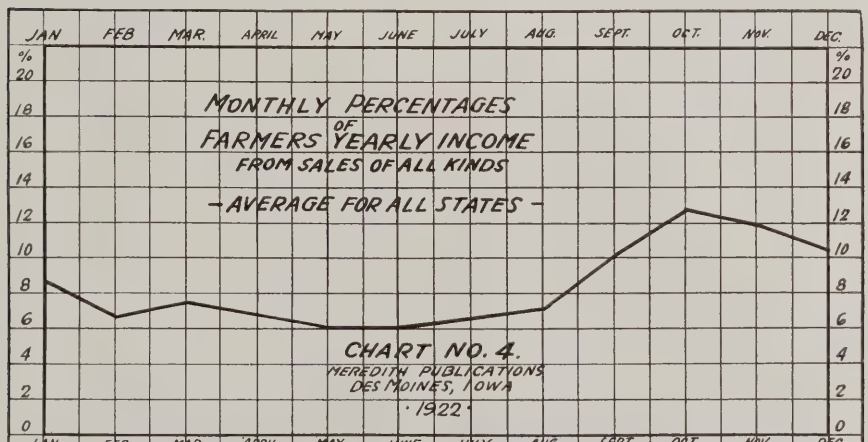
Now when does the farmer receive his income? I had a man say to me last summer, "There is no use talking about the farmer now. He hasn't the money." I said, "Why hasn't he?" "He spent it last October and November." "How did he happen to spend it then?" "That is when he received it."

If you are party to the popular conception that the farmer has money with which to buy only at certain seasons, read this explanation of farming and be disillusioned

And this was a big business man. I wouldn't refer to it here except that you may be able to set somebody else right, because the idea that the farmer gets his income in the fall is quite prevalent. I said to this friend, "Well, the farmers of this country received for dairy products in 1922 over $2,000,000,000. This is a lot of money, more than the total value of the corn crop. And if he sold all his milk in October, it is going to be sour along next Fourth of July." He didn't sell it then. He sells it every week. And the business man said, "How about the corn?"

He doesn't sell much corn.

He doesn't literally. What he sells are hogs and cattle, and they are fed on the corn in the winter and sold as fat cattle and hogs throughout the winter and spring. This isn't fall money. He doesn't get his wool just as winter is coming on either; the wool is a spring clip. He sells poultry and eggs to the amount of one thousand million dollars and this comes in a steady stream of income throughout the year—if anything, more in the spring and summer than other seasons.



MONTHLY PERCENTAGES OF YEAR'S RECEIPTS FROM SALES BY FARMERS FROM SALES OF ALL KINDS

	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	MONTHS OF LESS THAN 6% INCOME	MONTHS OF MORE THAN 6% INCOME
NORTH ATLANTIC	7.0	6.3	7.6	7.9	7.8	6.9	7.4	8.6	10.1	11.1	10.8	8.5	0	3
SOUTH ATLANTIC	8.4	5.8	5.8	5.8	4.7	4.8	5.9	5.6	9.0	15.6	14.1	14.5	7	3
HEART STATES	9.2	7.8	6.7	7.4	6.8	7.0	6.9	7.5	9.8	9.4	9.5	10.0	0	0
SOUTH CENTRAL	8.6	6.0	5.9	5.0	4.8	4.0	5.6	5.1	11.9	16.0	14.9	12.2	6	4
FAR WESTERN	6.4	4.2	5.5	7.9	5.0	6.8	4.9	6.1	9.3	20.0	16.0	8.4	4	2
UNITED STATES	8.5	6.8	7.4	6.9	6.1	6.1	6.4	6.9	10.1	12.6	11.7	10.5	0	4

CHART No. 4 shows the average monthly percentages of the farmer's yearly income. It doesn't run way up at one time and way down at another. For the country as a whole, in January, he received 8.5 per cent of his year's income, in February, 6.8 per cent, in March, 7.4 per cent, and so on throughout the year. An exact average distribution of income would be 8.3 per cent each month which is not very different from his actual experience. The most even distribution of income for any group of states is found in the "Heart" States

group, which records no month with but little less than 7 per cent and no month with over 10 per cent. The farmer is getting his money the year 'round to secure those necessities which are demanded every day as he goes along. One is selling corn, another is selling wheat, one is in the dairy business, and another is raising sheep. But altogether, this volume of money is steadily coming in and having its effect on business right along.

Another important feature that business men should consider is the farmer as a buyer under any and all conditions.

Some men say, "Oh, well, if the farmer is depressed we had better not go after his business," putting all the emphases upon whether to go after farm business or city business. My judgment is those who cut the effort to sell farmers and increase effort in the cities at such times are going contrary to sound action.

There are six and one-half million farms in the United States, each one in reality a small factory. Altogether they are going to spend ten, twelve or fourteen billion dollars a year just to keep going, no matter whether they make money or not, no matter whether they have a surplus or not. Of these farms, tens of thousands will need, for instance, a chicken yard, just a chicken yard but to build it they will need some woven wire, they will need some nails, some paint and lumber. Altogether, it will cost, say, $50.00. Well, an order for even 100,000 chicken yards at $50.00 makes a nice order; and 100,000 is but one-half of one per cent of the possibilities. Some of these farmers will need a little strip of wire here and there, and then a lot of roofs will leak on barns and houses, and they will need some new window glass, and they will need some new shoes and hats and coats. Throughout the whole year, they need large quantities of food-stuff, breakfast foods, flour, soap, and canned fruits and supplies of all kinds. There are eleven million men, as many women, and twenty million children on these farms and they all buy or have things bought for them.

A few years before the war, we took a group of Eastern advertising men out West to show them the farmer, and to show them the territory. Several of them had never before made a trip west of Buffalo, but were, nevertheless, handling sales effort for very large concerns. It happened that one of their number was interested in selling clothing and we asked him why he didn't make an effort for the farmers' business. He said the farmer would not buy as expensive clothing as his household. We asked him the price. Seventeen dollars, no more or no less. Well, he went into a clothing store out West and he asked the retailer, "Why don't you handle our clothing?" The retailer said, "Because it is too cheap. The farmers won't buy your line." This is the honest truth, and the advertising manager for the clothing concern said, "Oh, our line is too cheap, is it? Let's see some of this high-priced stuff of yours." Then he looked over the counters at the suits marked $25, $35, and $45 and he thought the stage had been set for him, for he said, "Let's see whether these suits are marked right; let's see the wholesale bills," and he found they had been marked right.

Another gentleman on the trip went into one of the stores. We said to him, "Ask for anything you want, phonographs, hair nets, tooth paste, toilet powder, etc.," and he asked for a dozen or fifteen different articles, and they were all there. Then he said, jokingly, "Give me a dozen subway tickets," and that was practically the only thing that he couldn't find in that country store in a fair-sized Iowa town.

And are they buying, these people with this $14,000,000,000 who have to have new equipment and food and clothing and hundreds of different lines of merchandise? Well, they have bought the major portion of all the automobiles. The average farmer has more machinery, so far as the product he turns out and the length of life of the machines are concerned, than the average man in the city, very much more in proportion. He has $3,600,000,000 invested in machinery, and if the life of it is ten years, then he must pay $360,000,000 a year for renewals on his machinery alone.

He has $11,000,000,000 invested in farm buildings, and if they last forty years, he has to put more than $250,000,000 a year in building just for replacements, to say nothing of money spent for additional buildings.

Of the six and one-half million farms in the United States, six hundred forty-four thousand of these farm houses have running water, and that is only ten per cent. There are nine times as many yet to serve. There are 453,000 that have gas or electricity in their houses. That is only seven per cent. There are ninety-three per cent yet as a market. There are 132,000 motor trucks, and 229,000 tractors—two per cent and three per cent. There is fifty times as big a market as has yet been served. There is the market for carpets and pianos and clothing and other things. But what does the average manufacturer and his sales manager know about this field? In that group of advertising men who were taken out to Iowa a few years ago to give them a close-up view of the farms of the West, was one who wanted to see an incubator. He was taken to the cellar to see an incubator, and he saw a hot air furnace at the bottom of the cellar steps. He said, "By gosh, she's a big old hen, isn't she?" And he thought he knew the farmers and the field that they represent.

I was asked recently to address the sales organization of a large concern. The subject assigned to me was, "How to Talk to the Farmer and the Possibilities of the Farm Market." I asked how many of those present had been farmers. Out of the sixty men present, forty-five had been farmers or had lived on a farm. Then I asked how many of the others had a father or mother or sister or relative on a farm and every hand went up. I asked, "Why don't you talk to the farmer just as you would like to be talked to, he is your kind. Many of you think you have to address this farmer in some other way, in some other language. Just talk to him as you do in the letters you write back home."

The farmers have the same tastes, so far as their comforts and their families' comforts, their hopes and their culture are concerned, that you have. They demand the modern conveniences. It is not a matter so much of selling an up-to-date farmer as it is being in an attitude to receive his order. They don't spend their money so promptly as some. They want a reason why. They won't buy a piano with a lot of carving on it for the neighbors to look at, neither will

they buy a string of books to put on the shelf, as you and I often do—just because it is the proper thing to have a library. They buy books to read.

The farm market certainly offers a great opportunity which some appreciate and others will no doubt give attention to when they come to understand it.

If what I have said is sound—that in the first place, the opportunity to go into business is dependent upon the number of acres of cultivated land, and that conditions of city business are only reflections of what has happened on all these farms in the United States, because of the influence of this farmer's dollar which comes to town and is traded five or six or seven times—as well as his own importance as a purchaser of your products—what is there that You and I can do in behalf of agriculture?

Because he is such an important factor in the nation, you and I should take an active, earnest interest in seeing that he gets a square deal, and if there is too much of a load on him because of the methods of doing business in this country today, see that some of that load is removed.

It is the service in behalf of the country, and yet I wonder how many of us have taken any interest in many matters that could be mentioned, such as, for example, tax-free bonds. We have a Farm Loan Act under which bonds are sold by the government to get money to loan to the farmers of this country on thirty years' time without commission for renewals, without new abstracts. These bonds are tax-free, but an effort has been made to get that particular feature revised so that the bonds would not be tax free. So long as municipals are tax-free, why not farm loan bonds? I wonder how many of us have helped the farmer any in his fight. How many of us have spoken to our congressman or asked our daily paper to run an editorial in behalf of the farmer and agriculture?

I took a clipping from the paper the other day which referred to the dipping vats in the south, where the farmers dip cattle to rid them of the tick. Does that mean anything to you? Well, one cattle tick in February means 12,000 in June and 12,000,000 in September. A cow can cope with one tick in January or February. Then, it is one cow and one tick; but in September, it is 12,000,000 ticks and no cow. That cattle owner doesn't come to the market, and his money does not circulate and make business for your customers. And so you and I are vitally interested in what they are doing down there to kill the tick, and we must help them if they are going to make the most progress possible in the struggle.

We lose $200,000,000 a year in the south through the destruction wrought by the boll weevil. That money might just as well come to this city or any other city for groceries, for furniture and carpets and phonographs and trucks and tires and everything else that goes to give us our American standard of living. But you can't spend $200,000,000 that you don't possess.

In the northwest is the wheat problem. Does it mean anything to you, that we have lost as many as 200,000,000 bushels of wheat in a single year on account of the wheat smut? It seems to me that it does. It has been found that the fungus growth that causes that disease in wheat couldn't live if there were no barberry bushes. Where there is such a bush there the wheat smut is prevalent; but where the winter home of the fungus has been removed by the uprooting of the barberry bush, the situation has been met. This eventually means money to the city business man.

The appropriation for the Department of Agriculture, that affects this underlying factor of your business, agriculture, is one-fourth of one per cent of the total government appropriations, and that is all. I urged that the appropriation be increased to the amount of the difference between one-fourth of one per cent and one-third of one per cent, and I couldn't get it. The difference between one-fourth and one-third is not great but the politicians would not grant it, because, they say, "We would be criticized by the tax-payers." It is time tax-payers interested themselves in how the tax money is spent.

Now these are a few examples of some of the national activities which we might take an interest in supporting. And then, too, in every state in the country there is an earnest group working toward the ultimate improvement of conditions as they exist today. These men are putting on campaigns for better breeding sires. Does that mean anything to you? They have cow testing associations. The attitude of the farmer is that his cows are good, that they do not need testing. And then he will join a cow testing association because somebody has urged him to do so. At the end of thirty days, he finds that he has a number of cows that are not producing enough butter-fat to pay

We have lost two hundred million bushels of wheat in a single year through the wheat smut. This eventually means money to Business

their feed bills. He tests them out for another month, and then makes up his mind to sell those particular cows for beef; he does so, and puts in their places cows that will pay him a profit. This is accomplished through cow testing. But you have to demonstrate its advantages. Somebody has to encourage it.

There are 600,000 farm boys and girls who belong to farm boys' and girls' clubs throughout the country. They are studying feeding, breeding, dairying, cooking, canning, bread making; every activity that tends to their being better farmers, better parents and better citizens —a wonderfully potential market.

There is a group of men, who appreciating the importance of this work, have organized a National Boys' and Girls' Committee in an effort to promote this work, offering prizes to be given as rewards at county, state, and national fairs and shows.

Have you taken an interest in this work? It is very much worth while from many standpoints. Altogether, there are many places where those who are really interested in agriculture can do effective service.

You are just as much interested in agriculture, just as much interested in this situation as the farmers in Pennsylvania or out in Iowa or down in Texas are, and more so, because the farmer gets the income first and the prosperity of business is, in most cases, really second-handed.

Why shouldn't we take an interest in railroad freight rates and in taxation? The farmer does not come in contact with the publisher and the editor of the large daily papers, the large magazines and many other papers as you do. These publishers do not come in contact with the farmer's problems. You could help by saying to them, "Why don't you help this farmer out; why don't you fight his battles?"

In many cases his battles are not fought, and his battles, as I see it, are our battles.

Can't we take a little more interest in agriculture and the farmer, and see that he gets a little squarer deal?

The important thing, as I see it, is not that we should merely say, "We are the friends of the farmer," but that we should say, "We are going to help the farmer in some way," and then do so. We should recognize that such activity on our part is really a sort of enlightened selfishness, that in doing this we shall be rendering the nation and ourselves a real service. It will mean satisfied homes in the country and in the cities, it will mean a solid foundation under this nation, with no bolshevism, no anarchists, and no radicals.

We are doing our local communities a service in promoting more prosperous conditions, we are building up our own businesses through attention to agriculture, and are putting an enduring foundation under this government of ours.

▼ ▼ ▼

Radio as a Business Stimulant

(*Continued from page 14*)

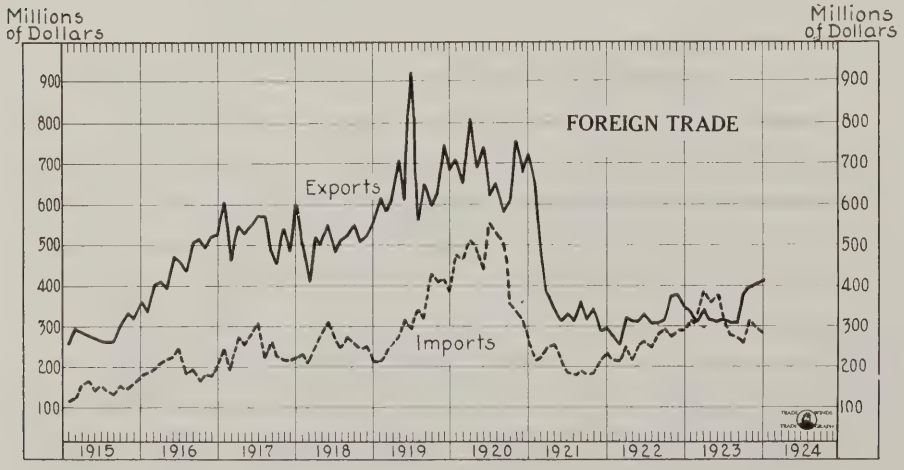
vailed in rural communities, we will come more and more to find the standardized, fixed methods of buying and selling which prevail in industrial centers.

The farmer will know, before he goes to market, what he ought to get for his products and what to pay for the things he wants to buy.

The local merchants will begin to realize that the farmer is a business man and must be dealt with in a businesslike way.

The banks, having installed receiving sets, will do their share to help merchants and farmers get together upon a basis of standard price and adopt big town methods of doing business. The cumulative effect is bound to be a stimulus upon the business of the entire section.

Such is the service of "WJAX, the Union Trust Co., Cleveland, Ohio"—sometimes known from Nova Scotia to the Caribbean as "The Wave from Lake Erie."



The excess of exports over imports of $375,048,000 in 1923 was the smallest favorable American balance of trade since 1914. During the year exports of $4,164,831,000 gained eight per cent over 1922, while imports amounting to $3,788,882,000 increased twenty-one per cent. Exports increased to all parts of the globe except to Europe, which took seven per cent less of American goods than in 1922. Our imports from Europe, however, increased twenty-four per cent. December exports gained, largely because of heavy cotton shipments.

THE UNION TRUST COMPANY *Cleveland*

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TRADE WINDS

May 1924

SYMBOLS OF STEEL AND STONE

TRAVIS' WINGS

May 1994

by MIKOLAS OF STHELL
AND SIONE IV

TRADE WINDS
Published by
the UNION TRUST Co.
CLEVELAND

MAY 1924

THAT thing we call the "Spirit of an Organization" often finds its best vehicle of expression in the inarticulate materials which constitute its Home—in steel and stone, bronze, brass, marble and mosaic.

In this, the May number of "Trade Winds," we have departed somewhat from the usual in an attempt to picture the Spirit of *Our* Organization.

It is our hope that you will accept these few vistas, prepared under the personal direction of Mr. Carle Semon, as symbolic of both the Spirit and the Ideal of The Union Trust of Cleveland.

To the service of this district, to the Greater Cleveland of Tomorrow and to those sturdy Frontiersmen of Yesterday, who made this great bank building and the Service for which it stands a possibility, this little volume and the building which it pictures are affectionately dedicated.

"They dreamt not of a perishable home, who thus could build"

—WORDSWORTH

AVISTA showing the Chester Avenue Lobby of The Union Trust Company, Cleveland. *Right:* Another view of the same lobby from the Rotunda. *Left:* Owing to the immense scope of the new banking home of The Union Trust Company, it is impossible to obtain a view of the exterior which gives an adequate estimate of its immensity. This photograph shows the Ninth-Chester Avenue façade.

"Ah, to build, to build!
That is the noblest of all arts"
—LONGFELLOW

A GLIMPSE of the Rotunda where the Chester Avenue and Euclid Avenue lobbies of The Union Trust Company, Cleveland, join to form the largest banking lobby in the world in the shape of a letter L.

"Like some tall palm,
the noiseless fabric sprung"
—Bishop Heber

The Euclid Avenue entrance and lobby viewed from the Rotunda. The two mezzanines combining rare beauty with utility, furnish but part of the bank's operative space for which approximately the first five stories of this twenty-story building are devoted.

As you stand on the mezzanine floors and look down into the Euclid lobby, you are reminded of the descriptive phrase of Milton:

"Anon, out of the earth a fabric huge
Rose, like an exhalation"

THE staircase at the far end of the Chester lobby flows to the first mezzanine and adds a refining note of rhythm to an impressive vista, characterized by "massive arches broad and round."

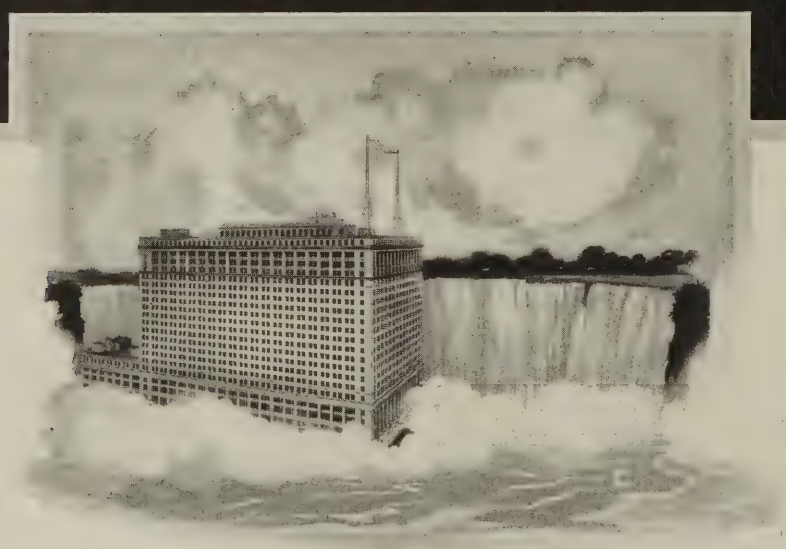
PERHAPS no phrase so well expresses
of these two immense lobbies of The
viewed from their intersection, as t
we scarce know how, as an emanati

e exquisite simplicity of the beauty
nion Trust Company, Cleveland, as
e words of Shairp, "Beauty comes,
from sources deeper than itself."

Above: THIS gives but an inadequate impression of the Directors' Room, which has been pronounced one of the most exquisite rooms in the country.

Below: A COMMITTEE ROOM — again exhibiting the chaste simplicity characteristic of the entire structure.

THE office of the Chairman of the Board, (above), and the office of the President of The Union Trust Company, Cleveland (below)— ample evidence that a business office can reflect the beauty of a home.

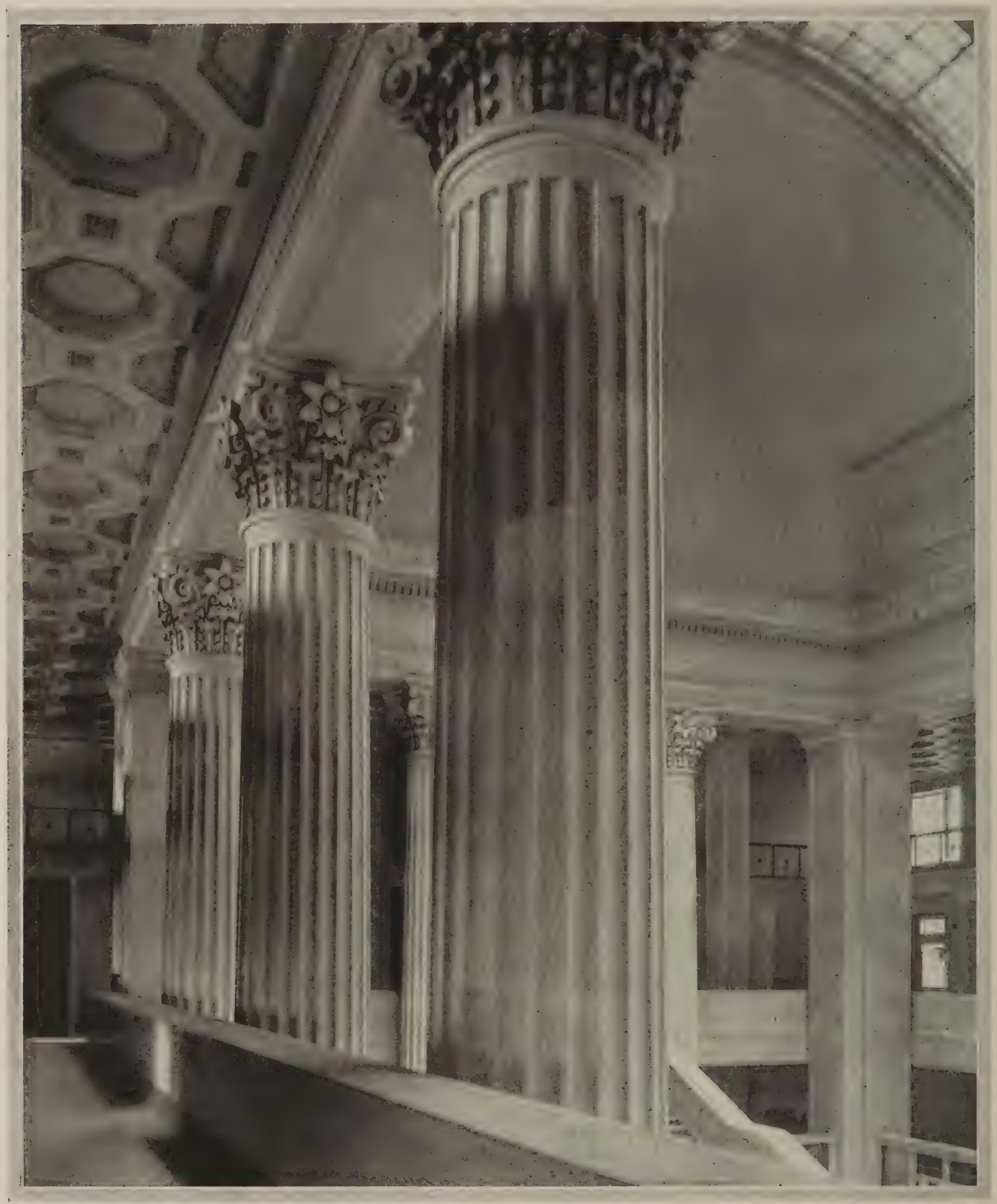


THREE million candle power pierces the night as a symbol of safety and in lieu of the usual, and oftentimes unsightly, electric sign.

The tremendous size of the Union Trust's new building can best be appreciated by comparing it with Niagara Falls. If it were placed on the water level of the river just below the American Falls, it would tower 100 feet above the top and would stretch over half the distance from the American side to Goat Island. *To right:* An unusual photograph showing a portion of the thousands who joined in welcoming this addition to Cleveland's nationally famous buildings — nearly half a million passed through this immense lobby, only two-thirds of which is shown in the picture, during the first week of the opening.

THE Euclid Avenue lobby viewed from the mezzanine as it encircles the Rotunda. To the left we see but a small portion of the 77 tellers' cages and to the extreme right, under the first mezzanine, are found the desks of those officers whose interests are primarily devoted to the service of our savings depositors, new savings accounts, etc.

No BANK could be truly great without the Good Will of the children, and so, on a Saturday afternoon, we held a Children's Party. Just half of the multitude of youngsters who poured in are shown in the picture. The Euclid Avenue lobby was equally crowded. *To the right:* The Juniors' Department of The Union Trust Company, Cleveland, welcoming its first visitors — an innovation which won hearty applause from old and young alike.



While this view of the far end of the Chester Avenue lobby from the first mezzanine gives but little idea of its immensity, it recalls with striking force those words of Charles Kingsley, "Grandeur consists in form and not in size."

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TRADE WINDS

TRADE MARK REG. U. S PAT OFF

Published by THE UNION TRUST CO., CLEVELAND, OHIO

JUNE, 1924

Trade Winds

Published by THE UNION TRUST CO., *Cleveland, Ohio*

Peace—Peace, Yet There is No Peace
By GEORGE T. ODELL

Our Railroads, the Wheels of Commerce
By O. D. FOSTER

The Company Store
By EDGAR E. ADAMS
General Superintendent, The Cleveland Hardware Co.

Business Conditions
By C. L. BRADLEY
Vice President, The Union Trust Co.

Canal Boats and Other Ancient and Uneconomic Diversions
By DAVID JAMESON
President of The Citizens National Bank of New Castle

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THE UNION TRUST CO.
Cleveland, O.

PEACE-PEACE

YET THERE IS NO PEACE

An historical sketch of "the Peace Movement," its deficiencies and its progress

By George T. Odell

A vast majority of the civilized people of the World want peace—a stabilized amity between nations that can never again be shattered by a devastating war such as the last one. To secure that ideal state is a function of politics, to translate the people's will into laws, treaties and policies. Nearly nine-tenths of the civilized governments are democratic in which the people are presumed to dictate the policies and political actions of those to whom legislative and administrative powers have been delegated. But who is there bold enough to say that the conscious desire for peace of this vast majority is being carried out today? Can anyone truthfully say that the state of international relations now is such that another war is impossible or even a remote possibility?

In the United States there are 32 organizations, supported by nearly one-third the adult population, whose primary purpose is to advance the cause of Peace. The organized peace movement in this country is more than 100 years old. It is generally admitted throughout the world that on every account the United States has an unparalleled opportunity to take the leadership in this great movement yet, five years after the close of the Great War, we Americans must confess that we have not yet found the means for liquidating the claims of war to settle international disputes.

There never has been a time in the history of this country when so much conscious effort was put forth to find the means of attaining permanent peace among the nations and races of the Earth as there is today. It seems anomolous that a movement supported by such tremendous numbers should have been so barren of results. Many great reforms have been achieved in less time through the consistent efforts of a fewer number of ardent adherents but they have not dissipated their forces as the peace advocates are doing. Not only is there no agreement on the formula for stabilizing amicable relations between nations, but it is also a sad fact that many of the peace organizations are intolerant of each other. No program of political action for the suppression of war can be successful unless it takes into account the causes of war, yet that is just the thing that is receiving the least attention from those organizations. Their creeds run the whole gamut of political and economic faiths. Nor have the American people had any help from their government in trying to define the causes of war. About a year ago, Senator William E. Borah pointed out that the federal government is not spending one cent to study the causes and remedy for war and no money has been appropriated for that purpose since he made his speech.

Disjunction of the peace movement in the United States has brought about a situation wherein the about 25,000,000 people who are consciously desirous of aiding the cause have, for the most part, grouped themselves around the standards of catch phrases. Barriers have been raised between organizations. To a certain extent these have been artificially created by the sinister and insiduous propaganda of militarists against the peace movement, in which they do not attack the peace motif openly but rather direct their shafts against

certain organizations. That time honored maneuver accomplishes the desired purpose of its originators of splitting the peace advocates into factions and thus rendering their efforts puerile without incurring the anathema that inevitably would be heaped upon them if they openly encouraged war. Another cause for the disjunctive state of the peace movement is the difference in type among its leaders. Earnest missionaries that they are, they too often are inclined to demand the letter of their own particular creeds and it is upon that rock that practically every effort at amalgamation has split.

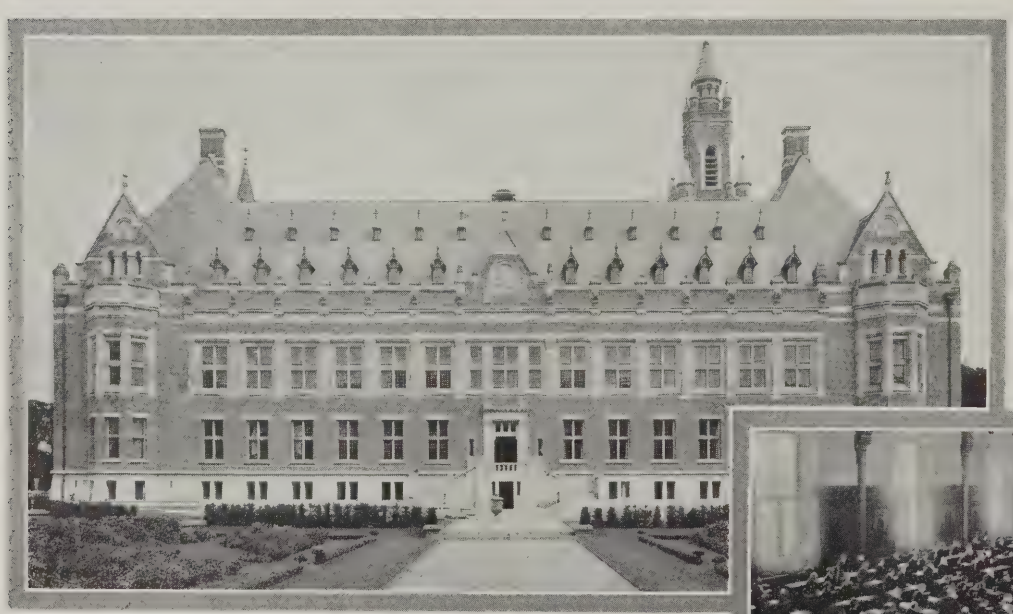
Every great war in Europe since the sixteenth century has stimulated the people to formulate plans for amicable adjustment of international disputes. In the United States the earliest organized effort in that direction grew out of the war of 1812. In 1815, David Low Dodge of New York City formed the New York Peace Society and during the succeeding 12 years, similar societies were formed in Ohio, Massachusetts, Pennsylvania, New Hampshire, Maine, Vermont, Rhode Island, Connecticut, Georgia and North Carolina. By 1828 that movement had assumed such proportions that William Ladd of Minot, Me., together with Mr. Dodge, saw a chance to federate those state societies into the American Peace Society which is still in flourishing existence. In 1840, Mr. Ladd published his plan for a Congress of Nations and a Court of Nations, each of which was to be separate and distinct. Concerning that plan, James Brown Scott, the veteran executive secretary of the Carnegie Endowment for International Peace wrote in 1917:

"It is equally true at the present day * * * when the Congress which he proposed, to agree upon the principles of international law, had been called in 1898, * * * and when the Court of nations which he advocated was approved in 1907 in the second conference of nations."

In stating the purpose of his plan, Mr. Ladd said: "I consider the Congress as the legislature and the Court as the judiciary of the government of nations, leaving the functions of the executive with public opinion, 'the Queen of the World.' This division I have never seen in any plan for a Congress or a Diet of independent nations either ancient or modern and I believe it will obviate the objections which have been heretofore made to such a plan."

From the founding of the American Peace Society until the World War the peace movement in the United States had only a few periods of impetus. Some other organizations sprang up, perhaps a dozen in the hundred years while since 1918 more than a score have come into existence. For the most part those earlier associations were chiefly concerned with purely legalistic methods of settling international disputes without attempting to reach the economic or political causes of war, or with general educational propaganda to create an abhorence of war. Andrew Carnegie caused a revival of the peace sentiment in the United States when he donated $10,000,000 of his great fortune to the Carnegie Endowment for International Peace, and gave in addition several millions for the erection of the Peace Palace at The Hague and of the Pan-American building in Washington. Theodore Roosevelt likewise put new life into the movement when he brought about the settlement of the Russo-Japanese war and took the preliminary steps that resulted in the calling of the second Hague conference by the Czar of Russia. But it cannot be said that anything which was done in those prewar days set the hearts of the people aflame for peace as they are today.

The flames are spreading, but they are spreading in such a way as



PHOTOS BY BROWN BROTHERS

The Carnegie Peace Palace at The Hague and a birds-eye of The Hague Peace Conference in session

to endanger the very purpose that lighted them. To make the fire effective, it must be concentrated and directed against the causes of war. To do that requires tolerant, broad-visioned leaders. They must blend spirituality with practicality and fit theories into economic values. The spiritual leaders have failed to co-ordinate the peace loving masses into an effective army that can march against the politicians and force them out of their inertia; theorists are divided against each other, each insisting upon his pet remedy for war. The ambitious scheme of uniting a majority of the peace advocates in the National Council for the Prevention of War has succeeded to the extent that from this source a vast amount of extremely valuable and authentic information is broadcasted to the nation, but it has not availed to synchronize the creeds of its member organizations. The referendum on the Bok prize peace plan was perhaps the greatest step that has ever been taken in this country to converge the peace forces for political action, yet even that has fallen far short of the expectations of its originators. But despite all that, there is greater reason for hope today than ever before.

American business men have at last tackled the problem in earnest. The interest of business men in this question has been gradually accumulating in the last five years but now it seems really to have burst into flame. The action of the Detroit Board of Commerce in injecting the peace question into the meeting of the north central division of the Chamber of Commerce of the United States at its meeting on January 23, was one of the most dramatic episodes in modern business history. The question was not on the agenda. It was not even thought of as a subject for discussion at that meeting until the delegation from Detroit demanded the floor for the presentation of the following propositions:

1. That prosperity in its broadest sense is a fundamental objective of the individual.

2. That peace is the stable condition that fosters prosperity.

3. That war is the uncertain condition that destroys prosperity.

4. That in proportion as the individual is well housed, well clothed and well fed, and enjoys a reasonable amount of wholesome recreation, the great masses of individuals which constitute world states, can avoid conflict—provided their leaders are willing to sacrifice their personal political ambitions for the stability of peace under which prosperity flourishes.

The Pan American Building at Washington, D. C.

5. That any co-operative effort founded on sound business sense, which seeks to remove the barriers to general prosperity of world states, in like measure helps to remove the causes of war.

EXAMPLE No. 1. A co-operative effort of this nature in which the business men of the United States are participating was created in Rome in March 1923, by the International Chamber of Commerce through the appointment of a committee on economic restoration, the chairman of which is Mr. Fred I. Kent, vice president of the Bankers' Trust Company of New York.

The report from this committee, recently made public, focuses attention on the fact that the various treaties of peace concluded since the World War, have destroyed the economic unity of Europe and have erected artificial barriers to trade in an endeavor to promote economic self-sufficiency among European states. This has imposed a tremendous unnecessary burden upon the people of Europe and has increased unemployment attendant with much hardship, poverty and destitution. This report challenges the business men of these countries involved and particularly the business organizations of every country, through close co-operation with each other and with their governments, to take such measures and to exercise every force possible to remove these barriers to trade and to restore, in so far as can be done, the economic unity without which general prosperity among European states can not prevail.

Example No. 2. Another co-operative effort of tremendous importance in which the business men of the United States are participating is the recent appointment of Gen. Charles G. Dawes, Mr. Owen D. Young and Mr. Henry M. Robinson, the latter two being members of the International Chamber of Commerce, as representatives on the advisory commission designed to solve the reparations problem, which has vexed the world and delayed general prosperity in Europe for five years. In solemn recognition of the service to humanity attending the unselfish co-operation which these American business men are extending to Europe in her hour of need and in order to insure the continuation of this co-operation until general prosperity again prevails among the states of Europe, we submit this resolution:

Be it resolved: That the delegates assembled in the northern central divisional conference of the United States Chamber of Commerce and representing the following states, Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, Ohio, North Dakota, South Dakota and Wisconsin, do hereby petition the Board of Directors of the United States Chamber of Commerce to take proper steps to prevail upon the council of the International Chamber of Commerce, which is free from political affiliation and which requires no sanction from any political

or parliamentary body, at its forthcoming meeting in Paris in July, to take all steps to bring about at the earliest date practicable, a general international economic conference to deal with the important question involved in the restoration of world-wide prosperity.

The resolution was carried unanimously. Julius H. Barnes, president of the Chamber of Commerce of the United States, who was present at the meeting was greatly impressed by the hearty endorsement the Detroit proposition received from every delegate present. Undoubtedly it voiced a sentiment behind which American business men generally are ready to unite. John N. Van der Vries, manager of the National Chamber pointed to the resolution passed by that body at its last annual convention in May 1923, as indicative of the action which the board of directors will undoubtedly take on this proposition. That resolution reads as follows:

"The annual meeting joins with the recent sessions of the International Chamber of Commerce in recognizing that the continued economic disorder in a large part of the world, is not only an obstacle to the establishment of permanent peace, elimination of unemployment and restoration of normal living conditions, but also contains the menace of still further unhappy developments. There should be a just solution of these problems with the least possible delay. The belief expressed by the International Chamber that there should be a general economic conference of nations interested, for final adjustment of these problems, we also share, and we extend assurance, that so far as an American business organization may find opportunity for usefulness, in supporting the plan of the International Chamber, to prepare the way for an economic conference, the Chamber of Commerce of the United States will lend its assistance to the full extent of its powers.

In the opinion of L. C. Zapf, secretary of the American section of the International Chamber of Commerce, the resolution adopted at the Chicago meeting is a clarion call to march towards an economic conference to which the business men's organizations throughout the civilized world will respond with all the intelligence and vigor which has contrived to make them the dominant force they are in modern society.

"Governments have tried for years to settle the question, and their failure has created a growing demand for the business men," he said. "The commission which General Dawes heads marks recognition and progress in this direction. That commission is only empowered, however, to deal with some of the phases of the problem. The economic conference could handle reparations and other issues towards whose settlement no progress has yet been made. It cannot now be forecast what the next meeting of the council of the International Chamber will decide with reference to urging the proposed conference, but with the Chamber of Commerce of the United States backing such a proposition, I think it likely that it may do so."

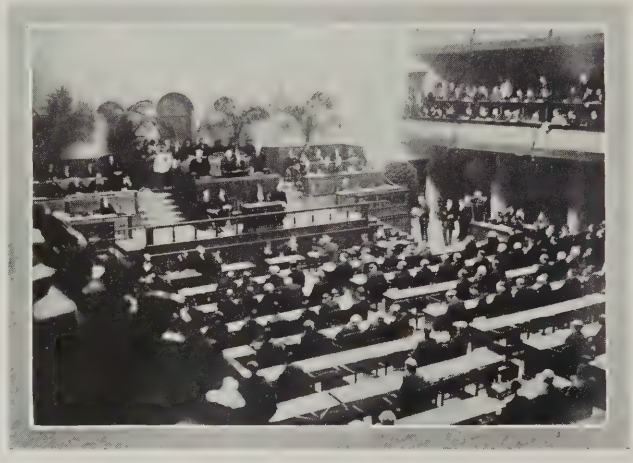


PHOTO BY BROWN BROTHERS

The League of Nations in session at Geneva, Switzerland

Already the International Chamber has gone on record that such a conference should be called when "the propitious hour arrived." The resolution to that effect was presented by the American section, the draft having been prepared on the ship on which the delegates were sailing for Rome. The International Chamber is an extremely powerful organization. It was founded at Paris in 1920, following the International Trade Conference held in 1919. That conference also was originated by the Chamber of Commerce of the United States. Twenty-six nations are represented there, and its purpose, according to the constitution, "is to facilitate the commercial intercourse of nations, to secure harmony of action on all international questions affecting commerce and industry and to promote peace, progress and cordial relations between countries and their citizens, by the co-operation of business men and their organizations devoted to the development of commerce and industry."

It is more than a year now since Charles E. Hughes, Secretary of State, made informal inquiry of the governments of the Great Powers as to their attitude on a general economic conference. The responses he received were generally favorable with the exception of France, which was just then flushed with optimism over its new scheme of bringing Germany to terms by its occupation of the Ruhr district. The American government felt that such a conference would be useless so long as France was intractable, and abandoned the scheme. Recently the Secretary of State has again declared that the time is not yet propitious for calling such a conference, although both he and the President have stated that when that time does come, the United States will undoubtedly participate. On the other hand, Ramsay MacDonald, the Labor Premier of England has taken the initiative in this matter, having announced in the House of Commons that his government is now working on plans for calling such a conference, which he hopes to see completed within a short space of time. In a way, that announcement was a "feeler" like the informal inquiry sent out by Secretary Hughes, but the reports that have been filtering in since that announcement was made indicate that this time the response will be more favorable. France is no longer optimistic about its Ruhr policy.

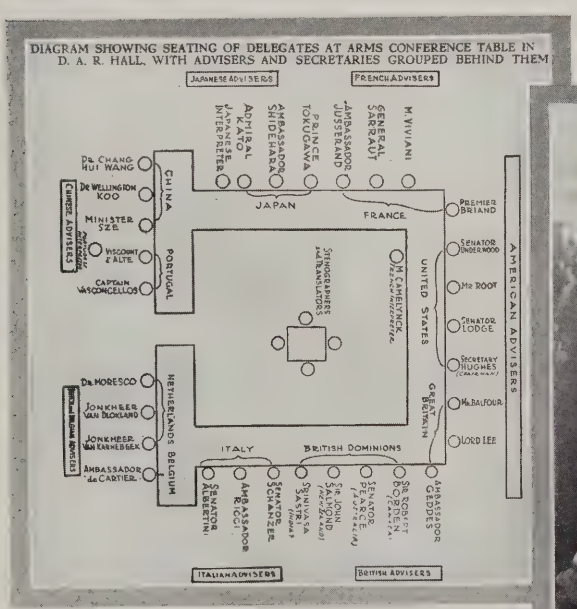
M. Poincarè is face to face with a startling loss of prestige in the Chamber of Deputies on the eve of the general elections in France, and has perceptibly modified his views with respect to the amount of indemnity that can be collected from Germany. But, it is unlikely that Mr. MacDonald will be able to carry out his plan until after the report of the advisory commission, of which General Dawes is the head, has been passed upon by the Reparations commission.

Meanwhile the concentration of their forces upon this question by American business men is extremely important. Every intelligent American knows that there is strong political opposition to participation by the United States in any international conference dealing with European affairs. Moreover, this is the quadrennial period in American politics when those in authority are frequently loathe to take a definite step in a controversial matter. In other words, in a time of political timidity there must be bold action from the outside if anything is to be achieved. We have already seen how the force of the peace movement in the United States has been dissipated by the lack of co-operation between the 32 organizations that are devoting themselves ostensibly to that cause. Yet those organizations have done something that can be made of tremendous value under the disciplining leadership of business men. That something is the arousing of a conscious desire to find the means of abolishing war by more than one third of the adult population of this country. That is a force, which, if it is co-ordinated and properly led can break down all political barriers.

Not long ago, B. N. Duke made a most astute observation when he said: "The world will be spared another and more terrible war only by the intervention of hard-headed business men, who are used to making successes out of erstwhile failures." Another telling contribution to this line of thought was made by George M. Reynolds, chairman of the Board of the Continental and Commercial National Bank of Chicago, when he declared: "Economic problems can't be settled by the sword and world affairs won't find the road to prosperity until European Powers realize that no permanent policy can be built on a cornerstone of hate and malice."

American business men have responded nobly to every cry of distress that has come from Europe since the war. As Thomas W. Lamont said: "To feed the poor, to succor those in sore distress, the American people are the most kind hearted, the most generous in the world. But when it comes to the question of the means to prevent the woe and waste and distress of war, then do we not seem to pause? We are ready to repair the war's damages—but to prevent them, we seem to falter." And Ernest T. Trigg, president of the Philadelphia Chamber of Commerce put the tag to that statement when he declared: "The mobilization for war was successful. Why then should not a mobilization for peace be made along the lines which the war experience has taught us are efficient?"

Possibly there are still some business men in the United States, as undoubtedly there are in Europe, who cling to the old theory that in the end successful wars are advantageous to commerce. Alvin Johnson had something to say on that score in an article on Commerce and War in the *Political Science Quarterly* for March, 1914. "One of the two great branches into which trade is divisible, typified by commerce with colonials, barbarians and infidels, naturally breeds war," he said. "This branch of trade has very nearly disappeared through the extension of the occidental value system to the ends of the world. Of the other great branch, one form, the trade in luxuries, once predominant, but now relatively insignificant, has served in its time to produce international discord. The great staple trade of modern times has had nothing to



The famous Arms Conference, or, as it is popularly called, "Disarmament Conference," in session in D. A. R. Hall, Washington, D. C. The diagram shows the seating of the delegates, secretaries, etc.

gain from international animosities and the growing specialty trade has had everything to lose from them. We are therefore justified in asserting that war and commerce, united through a thousand years, are now in fact divorced, except perhaps in the eyes of the international politicians who still premise this action upon their ancient relation."

There is another reason too why business men in the United States should concentrate upon this vital question of laying the foundation for permanent peace, which has been elucidated by men of broad vision in the business world. Sereno Pratt, former secretary of the Chamber of Commerce of the United States in the course of a recent address said: "The immense sums which are yearly diverted from commercial enterprises in order to defray the costs of military establishments are a heavy tax on business and serve to retard prosperity. Also Herbert Hoover said something along the same line when he declared that, "the two fundamentals for European reconstruction are: such political relations between the United States and Europe as will produce an atmosphere of peace and destroy the atmosphere of war; and, the reduction of armaments, not only to lessen government expenditures but to give confidence of peace."

If this resumé of the peace situation in America has been successful, the reader must now be convinced that the force that can bring to fruition the hope that flames in the breasts of the vast majority of the people of the world must come in large measure from the American business men. A fine start in that direction already has been made. The Chamber of Commerce of the United States has conducted a vigorous campaign in favor of the entrance of the United States into the World Court. It has urged the legalizing of the following clause to be inserted in all international commercial contracts: "The contracting parties agree to submit to arbitration in accordance with the arbitration rule of the International Chamber of Commerce, the settlement of all disputes in this contract." The New York Chamber of Commerce has been active in urging the adoption of courts of arbitration and the formation of international bodies. The Detroit Chamber of Commerce brought forward the proposal for the business men's backing for an international economic conference. The American Bankers Association as far back as 1922 declared the time has come for the American government to formulate the principles on which it will be able to co-operate with other nations for the needed rehabilitation of Europe and the peace of the world. In that resolution it declared that, "the conclusion is inevitably forced on the impartial observer that the primary need of the world is moral and spiritual regeneration as the essential basis for economic recovery. Until the nations of the world are willing to liquidate their hates, they can make little progress towards liquidating their debts." Also, the American Manufacturers Export Association declared in a resolution passed a year and a half ago that, "an international conference of business men be called together at the invitation of the Chamber of Commerce of the United States, to consider the facts (regarding the international war debt) and make public their findings."

During the opening week of the new banking home of The Union Trust Company, Cleveland, nearly half a million people visited this lobby — only half of which is shown in the photograph — the largest banking lobby in the world. In other words, nearly half the population of the city of Cleveland took time to visit what is now justly called "One of Cleveland's Pride Spots"

No one at all conversant with the trend of the peace movement in Europe can for a moment believe that any business men's movement started here will fail to get most enthusiastic support from the same class over there. Only a short time ago, Henry Bell, general manager of Lloyd's Bank in England, was in this country and said: "I have come here as far as I am in a representative position, to say that the City of London, its financiers, its commercial men, its bankers, are absolutely convinced that peace is the one thing necessary for the world today." Also along the same line, Lord Robert Cecil has declared: "It is to slander men of commerce to say that they advocate and encourage war because they can make something out of it * * * for peace is essential and vital to commerce. The waste of war not only destroys the resources of nations at war, but it destroys the resources of nations not engaged in it. Every operation of war destroys the means of commerce."

Most of the leadership in the peace movement in the United States so far has been in the hands of reformers and lawyers who specialize in international law. Recently I asked Dr. James Brown Scott, dean of the advocates of peace, what he knew about the peace movement in this country. He answered, "I don't know of any." What he meant was that consecutive steps towards the formulation of a peace program have been lacking since the World War and that the people are grouping themselves around the standards of catch phrases. The lack of unity regarding a formula is demonstrable. Much of the work for peace in this and other countries has been done by women, and they deserve great credit for arousing the people in all lands into active partisans of permanent peace. That spirit is ready to provide the motive force behind the business leaders who will formulate the plan to abolish war by eradicating the economic as well as the political causes which have made it inescapable hitherto that nations should destroy each other in order to settle their disputes.

Our Railroads, *the Wheels of Commerce*

By O. D. Foster

To those who concern themselves with the advance of commerce, the question of proper transportation is outstanding among the problems of today's business. The enormous increase in our manufacturing interests, the continual development of new areas, and the potential resources which stand waiting on a better road to market and on freight rates—which would not only offer a proper margin of return to the shipper but also to the railroads—all these offer big questions whose settlement should be among the early stabilization features of the business program.

In the last hundred years, progress in the United States has almost passed belief. It takes figures to present it clearly to the thinking mind. One hundred years ago we had a population of less than 10,000,000. Today it exceeds 107,000,000. At that time the west as a producing section was practically a negligible quantity and the fertile district of the middle west, from which we now derive the greatest share of our foodstuffs, was little more than a large and unexplored desert. The national wealth at that time was less than $3,000,000,000. Today it exceeds $300,000,000,000. This enormous increase in our progress and in our national prosperity we owe in great part to our railroads, for the railroad is the greatest civilizing agency of modern times. Wherever they have extended their right of way, there property has grown in value; within their radius the soil has been more intensively cultivated and colonization has increased. To no other individual agency do we owe so much of our advancing civilization or of our development.

No other public service organizations have labored under such handicaps as those experienced by the railroads. Between December, 1917, and February, 1920, while under government operation, the operating expenses of the railways increased $6,200,000 a day. While this has been reduced $800,000, taxes have been increased about $450,000, so that expenses are still over $5,800,000 a day higher than during the pre-war period. This must be taken under consideration when pre-war rates come under discussion.

In the face of such conditions the work of railroad executives has been nothing short of remarkable. There has been an average reduction of 13% in freight rates since 1921, effected through administrative economies, for the net operating income is less than it was before the war. Service has been improved, terminal facilities enlarged and other improvements conducive to the comfort of the shippers are under way.

We have the most progressive country in the world, the best transportation service and the lowest freight rates. In times of stress our railroad executives are called on as experts to relieve the transportation congestion in other countries. What we are today we owe to our railroads, and if we check their expansion we will not only automatically retard our progress, but will lower our standards of living. We have the greatest transportation system in existence and it is officered by men whose ability has been proved by achievement which ranks them as the best railroad executives in the world.

Quoting from statistical records of the United States, we find that, from the period of the close of the civil war to 1920, the miles of railroad advanced from 52,622 to 259,941. This increase was attended by remarkable expansion. In 1870, the population of the United States was 38,558,371. The census of 1920 shows that it had then increased to 105,710,620. Our production of corn at the close of the civil war amounted to 1,094,255,000 bushels, whereas in 1920 it had risen to 3,232,367,000 bushels. Between the close of the civil war and the opening of the world war, the value of manufactured products had increased from $1,885,861,676 to $24,246,434,724, largely due to the better advantages offered through easier transportation of raw materials and the opening up of new markets.

In a recent talk given before the Harvard Club of New York City, Howard Elliott, Chairman of the Northern Pacific Railroad, quoted statistics which are not only interesting but which make us think. He reminds us that with only 6% of the world's population, we produce:

43% of the world's coal and use 42%
54% of the iron and use 53%
64% of the steel and use 57%
49% of the copper and use 44%
64% of the petroleum and use 72%
69% of the cotton and use 37%
52% of the timber and use 51%
41% of the shoes and consume 39%
43% of the print paper and use 50%

"What we need is not merely an extension of existing systems, but the utilization to capacity of those we have"

Countries whose transportation problems remain unsolved soon find themselves in a weak position commercially. Those whose transportation requirements are carefully analyzed and the service given is based on a sound vision of increased commerce and the relation of proper transportation to potential development, those countries have been shown to advance rapidly.

As yet transportation is still in an embryonic stage. Not only do we give too little consideration to the vital question of the logical channels through which our commerce should pass, taking it from a national standpoint, but we also fail to take into consideration the relative value the different forms of carrier bear to the question of transportation as a whole. Until these problems are satisfactorily solved and some attempt is made to put them into logical working formation, we must continue to have chaos at peak periods, extravagant routing, congested terminals, embargoes, competition—which is extravagant for the railroads and which eventually reacts on the shipper—and all the other troubles which follow in the train of what the unthinking public calls "unstable management," but which in reality is *a deficiency in national organized planning*, a distinct *lack of clear thinking* and *a vision which is befogged with existing detail.*

There cannot be commercial expansion and industrial growth without intercommunication. Commerce is development and development does not grow without nourishment. The country is calling for better railroad facilities, more organized management and lower freight rates. What we need most of all is not merely an extension of existing systems, or an increase in equipment, but the utilization to the fullest capacity of those we have, and the quick adoption of every known means by which those facilities can be operated to produce a maximum of efficiency at a minimum of cost, the cutting out of service which is expensive to the roads and unproductive to their income, and the substitution of some means equally effective but at a lower rate of operation. The motorization of terminals, which is now being carefully studied by every progressive railroad executive in the country, is one means under consideration to reduce terminal expense, the use of all existing waterways for bulk freight is another; routing around large terminals to avoid yard congestion is being practiced to a far greater extent by all the roads and the utilization of "green lands" instead of expensive terminal property in the heart of cities for all possible operations are among the efficiency measures which are being tried out by the various roads.

"The importance of expediting shipments cannot be overestimated. According to one authority, there are $1,500,000,000 worth of commodities constantly in transit, and if the average time in transit could be reduced one day, a saving of approximately $20,000,000 in interest charges alone would result."

WALTER C. WHITE, *Pres.*,
White Motor Co.

The directing minds at the head of our great railroad systems have no superiors in any country in the world. They are bending all their efforts toward the development of some great national plan whereby the most economical form of carrier can be utilized for the transportation of each individual product and for its movement in certain localities; for better means of through routing and a reduction of terminal expense by lowering congestion, and are bringing about a clearer recognition of the fact that the excessively long

haul, the very short haul and the handling of L. C. L. freight all tend to eat into the profits of transportation by rail. Passage through an increasing number of terminals, the returning of "empties" over long distances, short hauls which tie up cars over long periods in yards and sidings devoted to short distance freight, and the moving of less than carload freight, these are all movements which seriously lower railroad profits and decrease the possibility of offering better service.

No form of business can operate efficiently without its proper margin of profit. Economy in operation permits lower rates. What then is being done to see that the people of this country are encouraged commercially by better and more efficient transportation?

In the summer of 1923, six committees were appointed through Julius Barnes, president of the Chamber of Commerce of the United States, to make a survey of conditions. Their studies were based on a majority of Class 1 railroads. Broadly speaking, the estimate arrived at was that there will be an increase of 25% in passenger traffic and 33⅓% in freight traffic on the railroads alone within the next ten years, and that an expenditure of $7,870,000,000 will be required to provide facilities and equipment for these increases. This is considered a conservative estimate. It does not take into account the prospective expansion in other transportation fields, such as the rapidly growing use of motor transport; the great expansion of the highways nor the potential development of the waterways. It means that an expenditure of more than seven billion dollars is necessary if the railroads are to keep pace with the rising tide of traffic.

Making these terms more specific, the estimated growth of passenger traffic is from 40,000,000,000 passenger miles in 1923 to 50,000,000,000 in 1933 and of freight traffic from 420,000,000,000 revenue ton miles to 560,000,000,000 ton miles during the same period.

In order to handle this increase properly, the railroads must add to their present equipment 38,350 miles of track; 13,200 locomotives; 725,000 freight cars and 12,300 passenger cars during the next decade.

This estimated increase in capital expenditure will provide only for the additional facilities needed to enable the railroads to handle the probable increase in business. It does not take into account the funds required for the elimination of grade crossings, the installation of automatic brake control and other improvements of this character which would increase the safety of the service but would not add to the ability of the roads to handle increased traffic.

The basis from which the committee has worked out these recommendations is the record of past growth of railroad traffic, increasing population and increasing per capita use of transportation in the United States. In order to still further safeguard the accuracy of the figures given in the estimate, the committee sent a questionnaire to each of the Class 1 roads, asking its officials to check the figures given and if they considered them inaccurate in any respect to furnish such figures as they considered proper. They were also asked to estimate the facilities required to handle the new business and the probable cost of such facilities.

A considerable majority of the largest railway systems in the United States co-operated with the board of inquiry in a careful compilation of these statistics. Computation based on this system of survey would indicate that the railways of the country as a whole will need the following increases in their facilities during the next ten years:

First main track	5,950 miles
Other main track	11,400 miles
Yard and side track	21,000 miles
Total	38,350 miles
Locomotives	13,200
Freight cars	725,000
Passenger cars	12,300

The figure estimated for additional capital expenditures is based on current prices and is divided as follows:

Additions	$5,339,874,000
Improvements	2,533,103,000
Grand Total	$7,872,977,000

The term "additions," covers all new facilities, such as additional equipment, tracks, buildings, bridges and other structures, additional ties laid in existing tracks and additional devices, such as air brakes, installed in cars not previously equipped.

"Improvements," include the substitution of superior parts for inferior parts retired, such as the use of steel tired wheels for cast wheel under equipment, the application of heavier rails, the strengthening of bridges by the substitution of heavier members and such matters.

The estimate above given was carefully computed as stated, but is particularly interesting inasmuch as it closely approximates that made by the Joint Commission of Agricultural Inquiry of Congress, which set the investment which should be

"The directing minds of our great railroads are bending all their efforts toward better means of through routing and a reduction of terminal expense by lowering congestion"

made by the railways adequately to increase their facilities at $750,000,000 per annum. This would bring the total for a ten years' period close to the amount given by the committee from the Chamber of Commerce.

Among the vital issues which came under the consideration of the investigating committees were those of private and government ownership of the roads and the advantages of railroad consolidation. Both questions are too controversial in their nature to be included in a general discussion but the advantages set forth by the committee in the matter of consolidation have a strong bearing on transportation efficiency and rate regulation and deserve mention here.

Consolidation, if undertaken from its most constructive standpoint, would mean:

A. The development of a more uniformly strong and stable railroad system.

B. Simplified and improved rate regulation.

C. Economies in construction, operation, maintenance and accounting.

D. Improved car service and routing of traffic.

E. Preservation of competition in service.

In the interest of public service and the establishment of minimum rates which should still show a proper margin of profit to operating companies, it has been advocated that the railroads of the United States should be grouped or consolidated within a reasonable time into a limited number, say twenty or thirty, strong competing systems. This would simplify the problems of rate making and rate adjustment, as rate systems have to be worked out for different sections of the country and roads serving those sections. Whatever the rate system, structure, scale or group, it must apply alike to all carriers, weak or strong, in the section it covers.

Consolidation would also show a saving in construction costs, as there would be less duplication and a greater use of existing facilities, which would permit a smaller total investment of capital. Terminal expenses would be lowered and future development of railroad terminals in large cities could be planned to give more systematic and economical operation. Shop costs would be less, as there would not be such a duplication of these plants. Accounts would be simplified and materials could be bought at lower costs on larger contracts. All these and many other improvements would result, all of which would have a marked influence in reducing operating expenses and consequently would affect rates.

"The freight rates of American railroads are the lowest in the world—made possible through carloads and trainload units, with the result that our ton mile costs have been lowered"

The freight rates of American railroads are the lowest in the world. This statement is made from a pre-war analysis of freight rates made on basic commodities, and while shifting exchange makes present comparisons difficult there is no reason for thinking the statement does not still hold good. This low rate has been made possible through our carload and train load units, which are far larger than in any other country and we use more powerful locomotives, with the result that our ton mile costs have been lower, permitting us to establish a lower rate. Results have been advantageous to the shipper, but present rates are not showing a fair margin of profit to the railroads.

The transportation Act of 1920 provided that 5½% should be considered a fair return for the next two years and this was later raised to 5¾%, yet the highest earnings shown were during the first eight months of 1923, at which time the roads only earned 5.41%, which was still far short of what was considered fair.

That traffic is increasing is shown by the car loadings, all records having been exceeded during the week which ended Sept. 29th last, when they reached 1,097,000, which exceeded by 90,000 loads the previous high mark in October, 1920.

But while gross receipts have continued to increase, operating expenses, due to labor increase and other augmented costs, have laid an additional burden on the carriers, and the *net* income from traffic has not been greatly in excess of previous seasons. Then too, there has been the constant consideration of improved service, which has raised the general overhead without adding to the revenue. To the thinking shipper efficient and adequate service is even more important than a lowered rate, and the rate problem of the hour consists not merely in a question of the actual amount charged per ton mile but in such an adjustment of relative rates that the rate for each section and each commodity shall be not only fair but shall insure for the shipper the best possible service in return for the amount he expends in shipment.

Rates which are not based on the conditions which govern traffic in that section are obviously unfair to both shipper and road. For example, on the main lines advantage can be taken of the large volume of business and consequent density of traffic, with the result that great economies are effected from concentrated car loads and heavy train load movement. On lines of light traffic and on branch lines operations are carried on at a serious proportional expense and often at a heavy loss to the road.

Many considerations enter into the determination of rates, and the fact that the principles of rate fixing are ethical rather than mathematical makes it difficult to establish any fixed formulae. In a country of continental proportions rates can

not be determined entirely by length of haul. Distance is only one factor which affects the cost of service and it must be given different weights in different rate systems. If it were always rated on the same basis, large sections of the United States would have remained isolated and would today be only partially occupied and developed. Nor can rates be based entirely on the costs of service, otherwise the difference between the rates on manufactured articles and other high priced goods and the rates on raw materials and other low priced articles would be much less than the present difference in such rates. Many elements in the costs of service are also overlooked, such as the dead weight of the car hauled, which is relatively higher in the case of light loading commodities and L. C. L. traffic, than with heavy loading freight. Then again there is the long return haul of "empties," which must be given consideration and no rate which fails to take in this dead-head mileage can be considered compensatory. L. C. L. freight is also notably a losing proposition, especially on short hauls, because of the mounting cost for labor, and the high terminal expense in comparison with the return.

These terminal costs are serious items in the expense of shipments. It is said that one-half of the operating expense of the roads is used in the maintenance of terminal facilities and that 25% of the equipment is used to move 4½% of the volume.

Terminal congestion is recognized as one of the most serious evils incident to freight movement, and terminal charges constitute one of the highest factors in the carriers' expenses. The congestion of transportation centers around the terminals of our large cities, and it is here that delays occur and the roads find difficulty in keeping pace with shippers' demands. Almost without exception the main tracks of the railroads have sufficient capacity for the movement of more freight than is offered them.

Within the terminal area the transportation system must perform four functions:

1. The distribution of commodities
2. Receipt and forwarding of goods in general commerce
3. Delivery of raw products to and collection of finished products from industries
4. Interchange of freight between railroads (or between railroads and ships or barges).

In order to carry on their business, railroads must build yards within or near the terminal area for breaking up and making up trains; auxiliary yards for local switching; freight houses for receiving and delivering L. C. L. freight; team tracks for receiving and delivering carload freight; interchange tracks and belt lines for the transfer of cars and a variety of special facilities. To meet commercial demands they must be close to the center of the city and located on property which often represents enormous values.

The steam and electric locomotives in service on the New York Central Lines have an aggregate capacity of 11,000,000 horsepower. This is equal to a third of all the power used in the manufacturing industries of the country.

Operating and maintaining this great transportation power plant cost last year $169,000,000, or 33 per cent of the total operating expenses. The men on the engines earned $34,000,000. In the fireboxes was burned $54,000,000 worth of coal. Repairs, another large item, took $54,000,000.

Adequate power is the first necessity of efficient transportation service.

—*from an advertisement of "The New York Central"*

In his book "Railroad Freight Transportation," L. F. Loree, president of the Delaware & Lackawana railroad, shows that the average trip of a freight car occupies 14.9 days, and out of that time the car is actually moving or is delayed on the road in line haul only 1.64 days, nearly nine-tenths of the total time being spent within terminal areas.

For general purposes, freight might be divided into two classes:

1. Carload
2. L. C. L. (less than carload).

The two differ in three particulars:

1. Carload freight is loaded into and unloaded from freight cars by the trader or the trucker whom he employs, while L. C. L. freight is loaded and unloaded by railroad employes.
2. Carload freight does not pass through a freight station but is loaded and unloaded at the trader's expense on public team tracks or private tracks of industries. L. C. L. freight is loaded and unloaded over a station platform at the expense of the carrier. In most instances these freight stations are located on high priced property in the congested areas of large cities.
3. L. C. L. rates are higher than carload rates because L. C. L. cars are seldom if ever loaded to anything like their tonnage capacity with this character of freight, and because of the heavy station expense incident to its handling.

The usual practice is to notify the consignee after the L. C. L. freight has been unloaded into the freight house or the cars containing carload freight have been placed on the team or industry tracks. An allowance of 48 hours free time is made for the unloading. Consignees often take advantage of this full time and failure to remove the goods more promptly ties up an enormous amount of equipment which should be moving, and congests the freight houses. This and other practices incident to terminal loading and

"These terminal costs are serious items in the expense of shipments. It is said that one-half the operating expense of roads is used in the maintenance of terminal facilities"

You Can't Bequeath Your Business Judgment

YOU can make a will to dispose of your material possessions, but you cannot pass your ability on to a successor.

It takes all of your time, now, to conduct your affairs. Do you know of anyone who would be able, without neglect of his own affairs, to take your place?

Administering your estate after you have gone will not be any simpler than managing it while you are here. Probably, it will not be so easy. Not many individuals care to have such a duty imposed on them.

This company, with its staff of specialists trained in fiduciary service, its wide experience, financial resources and state-controlled responsibility, is organized to act as your executor and trustee.

A talk with one of our officers will not place you under any obligation and it may help you to the right solution of your problem.

"Safeguarding Your Family's Future" is a helpful booklet that we will gladly send you.

Trust Department

The UNION TRUST Co.

CLEVELAND

Resources over 270 Millions

unloading puts the railroads in a serious dilemma. Either they must add to their terminal facilities at enormous expense, or they must find some way to pass more freight through them.

The introduction of the motor truck by means of a system of organized cartage which would insure store door delivery has been advanced as a relief from congestion at terminals. The motor car could also be used for trap car L. C. L. freight service to industries, and, in a large measure, similar movement in interchange and between local stations, and for intraterminal movement, such as movement between industries or different plants of the same industry within the terminal area.

Two objects would be served: Better service to the trader, without increased cost, and economy to the carriers. Performance would cover the collection and delivery of L. C. L. freight without clogging the freight houses; rail haul could begin at convenient outlying stations accessible to highway vehicles, eliminating the expense of handling in an expensive and congested district; street congestion in the center of cities would be reduced and shipments moving between large cities could be consolidated into fewer cars, transfers avoided and loadings increased. If railroads were relieved of the handling of this unremunerative L. C. L. freight and were able to relieve their operating expense of this added burden, they could then offer better service on the long haul and carload traffic. Demountable truck bodies which incur no operating expense when idle, and semi-trailers are being used in many of the large cities in a tryout of this plan of motor cartage.

Another auxiliary which is capable of enormous future development in connection with the bulk freight movement, is the waterway. In general our waterways are carrying little more traffic than they were twenty years ago, in spite of the fact that within the past fifteen years transportation demands have more than doubled. It is true that waterways have their limitations, that many waters are only navigable during certain seasons; that large sections of the country can not be reached by navigable waterways and that some commodities can be moved more economically by rail. Nevertheless, the waterways should be so analyzed and their functions so carefully designated that they could be co-ordinated in the transportation plan with the railways, taking their place as part of the national system of transportation.

Actually, water transportation has a three-fold role:

1. Where it is cheaper, better or more convenient

2. Where water transportation is needed to eliminate danger of a shortage of rail transportation

3. Where no other form of transportation is available.

The acute value of waterways is especially marked in the Great Lakes region. States which are able to avail themselves of this water route of transportation produce 75% of the wheat; 65% of the grain; 100% of the flax; 85% of the iron; 39% of the copper; 74% of the zinc and 46% of the lead produced in the entire country. The shores of the Great Lakes are also lined with industries which produce large quantities of manufactured articles which play an important part in both foreign and domestic trade.

In places accessible to water transportation it has long been recognized as the most economical movement for large tonnage. For years the steel industry has brought its large shipments of raw materials to its plants via the Great Lakes and the Monongahela River. It is now greatly extending its use of water transportation through the shipment of finished products on the Ohio and Mississippi rivers and intracoastal canals. The U. S. Steel Corporation is planning to move eleven million tons annually by water, and other large steel producers on the upper Ohio have correspondingly large water transportation programs.

Transportation is not a matter of local conditions or the use of one carrier or another except in its relation to the great scheme of economical distribution. Living costs are predicated on freight movement; freight rates are dependent on the gross cost to carriers for transporting the commodities which they are forced to move. Until the time comes when we can take up this problem and look at it from a national standpoint; until the roads have found some logical means of reducing excessive expense in unremunerative operations *freight rates cannot come down.*

The American railroads in 1923 hauled the largest tonnage in their history—and with an efficiency of operation never before paralleled. To this achievement the New York Central Lines contributed a notable measure of public service.

The very heavy program of rehabilitation inaugurated by the New York Central Lines immediately following the termination of Federal control—involving the expenditure of many millions of dollars for new equipment and larger facilities—placed this railroad system in a position to meet the growing traffic demands of the great territory it serves.

While car loadings throughout the country for 1923 showed an increase of 26.7% over 1921, and 15.3% over 1922, the New York Central Lines gained 42.7% over 1921, and 16.8% over 1922.

The New York Central program of expansion —in anticipation of the greater traffic demands of the coming years—is going steadily on.

—from an advertisement of "The New York Central"

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The* UNION TRUST *Co.

The Company Store

An illuminating sidelight upon a much abused subject by the man who is responsible for one of the largest and oldest company stores in the industrial world

By Edgar E. Adams
General Superintendent, The Cleveland Hardware Co.

The company store is not a new thing, but like many so-called "welfare" items which came into great vogue during the World War, it attained a sudden prominence and then faded out into "innocuous desuetude" largely because of a failure to understand its purpose and the proper method of operation.

In this analysis of the subject, Mr. Adams points out that the company store is a remedy for many serious and expensive abuses which will be recognized as being prevalent in practically every large manufacturing plant.

The author is responsible for one of the largest and most successful company stores in the country and his keen insight into its reason for being and the results obtained therefrom are well worth the time of any industrial executive.

At the very outset, I want to explain that a company store is merely a name for something which is, in fact, quite different from a store in the ordinary sense of the word.

A company store is really a buying service for employees. It is essentially different from "a store" in two fundamental respects: first, it does not aim to make a profit; second, it does not push the sale of any of the goods which it carries. It merely meets the buying demand of the employees.

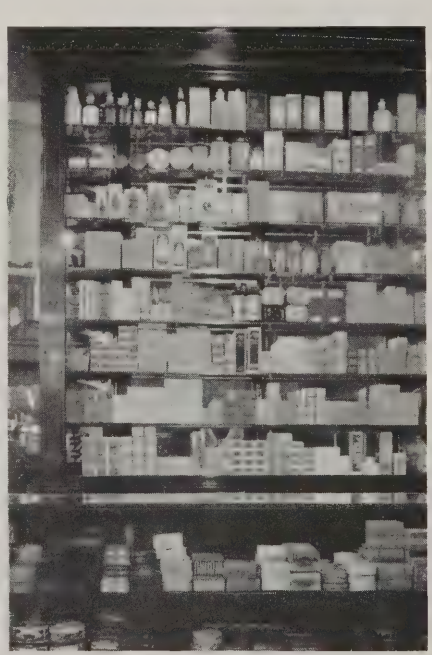
And this buying demand is surprisingly large. Factory employees constantly want and need an impressively large number of things while they are at the factory. And if they are left to themselves they will get these things in one way or another. Either they will drop over the back fence to a nearby store, or they will buy from some employee who has installed, sub-rosa, inside the factory, a little store of his own.

For instance, we once employed a man in connection with one of our tool rooms who, we later discovered, sold cough medicine, canvass gloves, soap and a number of other standard articles, in addition to advancing money on payrolls. In fact, this man spent most of his time taking care of his private business, the company very obligingly paying him a salary and hiring assistants to do the actual work for which he was employed.

We had a machinist whose wife operated a small candy store, and this man kept a stock of candy and chewing gum in his tool room and supplied the men around the shop. We had employees selling watches, safety razors, and various special articles. Altogether, when a definite survey was made, we found nine independent "dealers" in our institution.

Now, of course, all this was objectionable, and yet, at the same time, these dealers were performing a very definite service for our employees. Once inside the plant, the workman found that he wanted tobacco, candy, soap, or a dozen and one things, and it was convenient for him to be able to purchase them within the shop.

Factory employees also have a tendency to find some private use for many of the articles carried in supply and stock rooms. If a factory does not keep a careful check upon these supplies, the employees requisition them and take them home. Although, of course, the employees do not recognize it, this practice amounts practically to petty thievery and in the course of a year a surprisingly large number of items disappear from the factory in this manner.

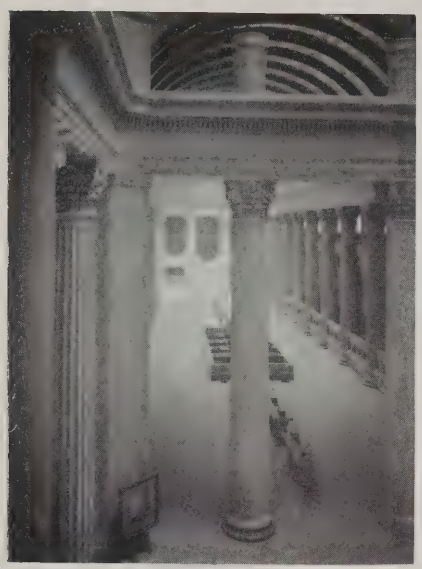


"The first step toward eliminating petty thievery is to centralize factory supplies"

The first step toward eliminating petty thievery is to centralize factory supplies and set a definite price upon every article, the department requisitioning that article being charged that price. Then if an employee wants any of these supplies, he can purchase them at that fixed price. The point is that if the employee is given the opportunity to buy conveniently, it will not occur to him to steal.

And out of such a centralized supply room grows the company store. It is very natural to begin to add to the stock of factory supplies such things as tobacco, candy, gloves and other items which formerly were privately sold inside the factory. The added benefit to the employee is, of course, that in the company store these items are sold practically at cost, and there is also some guarantee as to their quality. This also eliminates the practice of "sneaking out" to the store around the corner during working hours.

From this beginning, it is very easy to extend the buying service of the company store into larger fields, including, finally, practically anything in the way of personal or standard household supplies which the employee or his family may want. This idea is not at all new. The purchasing departments of many companies have performed this service for the "higher ups" for years. The company store merely extends to all employees a privilege which formerly belonged only to executives.



The above photograph, while extremely small, is interesting because it shows but a little more than half of the largest banking lobby in the world, although it accurately depicts in some detail the chaste simplicity of treatment. Naturally we are just a little proud to admit this is a scene from the new banking home of The Union Trust Company, Cleveland

To show the extent of the buying service performed by our own company store, let me list some of the items which it purchases regularly for employees:

Coal	Shop clothing
Meat	Shoes
Candy	Soft drinks
Staple groceries	Lunches
Household supplies	Milk
Furniture	Tires

In fact, the list might be extended to cover a page or more. In short, we stand ready to purchase for our employees practically anything under the sun which they may desire to buy. But, on the other hand, we do not urge the employee to buy a single thing.

THE ordinary storekeeper finds an article he can sell at a good profit. He then displays and advertises that article in such a way as to induce people to buy it. But the company store functions in just the opposite way. First, we want to enable the employee to buy in such a convenient way that he need lose no time in shopping. Secondly, we want to sell articles to the employees at the greatest possible discount. We want to save the employee all the money we can. So it would not be considered policy to exhibit a victrola or, by the playing of records, induce the employees to buy victrolas. But, if any employee decided he wished to buy a victrola, then it would be the function of the store to purchase it for him—and at a discount.

A few figures showing the volume of our company store business indicate the extent to which our own employees are availing themselves of this buying service. Our cigar bill runs over $1000 a month—our pie bill over $500 a month. We sell monthly a ton and a half of wieners. In fact, wholesalers tell us that our store does a business equivalent to that of three average retail groceries.

An interesting thought at this point is that the company store represents merely another proof of the power of consolidating buying power. Individually, our employees would each have to pay retail prices. Collectively, they are able to buy at a surprisingly large discount, ranging from a small percentage on standard groceries up to 40 and sometimes 50 per cent on certain lines of furniture and clothing. At the present time gasoline can be purchased in carload lots at about 11 cents. The stores department can easily handle it and sell it for 14 cents, giving the employee a saving of about 5 cents per gallon.

All that is necessary to turn the collective buying power of employees to a tremendous economic advantage to themselves is the directing of this buying power through a single purchaser—that is, the buyer for the company store.

It often happens, too, that the same article—gasoline, for instance—is used both by employees and by the company in the course of its regular business. By combining the purchasing power of employees and company, the company as well as employees reap the benefit of the reduced rate at which the article may be purchased.

Another advantage of the company store, both to employer and employee, is the fact that credit at the company store may be substituted for payroll advances which are unavoidable in almost all factories. Instead of giving an employee his pay in advance, we give him coupon books containing coupons in denominations of 25c, 10c, 5c, 2c, and 1c. These books are charged against the amount which he has coming to him upon the next pay day. The books can be used at the company store in lieu of cash. Thus a new man starting work in the morning without a cent in his pocket, by evening may secure from the time-

"The Company Store prevents the employee from 'dropping over the back fence' and it stops a serious leakage in the supply room"

keeper $3.50 worth of coupons with which he can buy groceries or other necessities at the company store, so that he is practically independent from the day he started to work. Purchases at the store may be made only by coupons or cash.

This coupon system also tends to eliminate the evil of charge accounts at the corner grocery, whereby workmen often run up an indebtedness of $100.00 or more, an amount which it is practically impossible for them to pay.

Our store is open during all working hours to employees who are not actually on the job. Of course, employees are supposed to come to the store only when they are off duty or between shifts, but families of employees can come in and buy at any time.

Our store is under the supervision of the operating department. The financial department sets aside a certain amount of capital upon which to operate the store and charges the store interest on this amount. The office also takes inventory every three months, does the store bookkeeping and pays the store's bills. The store is not charged with heat, rent, light, and so forth. But the actual storekeeping falls naturally under the operating department, because the assistant storekeeper is also responsible for company supplies and handles the company supply and tool room. In our plant it takes the time of two people to operate the store—one person working all of the time and two or three others coming in during rush hours.

While the store makes no profit, it does, nevertheless, pay for itself—that is, it is charged with the cost of its own operation. While the office performs gratis a certain number of bookkeeping and similar services for the store, the store also handles gratis the supply and tool room work, so that the give and take are evenly balanced. What we try to do is to make the store literally cost the company nothing and at the same time make no profit whatever. It is a self-supporting service department.

And from a department of this sort it might be possible eventually to develop an advisory service having to do also with larger financial problems of employees, such as the buying of homes, making investments, and so forth.

Our experience has been that the employee does not want the company to do something for him "for nothing." Nevertheless if he can receive help without feeling that it is charity, he is very glad to avail himself of it. And the convenience and the saving of money which our employees have accomplished through our company store we feel has a very material effect upon the shop morale and the general feeling of the employees toward the company. To this extent, perhaps, the company does really profit from operating a company store.

"So-called welfare items," says Mr. Adams, "are not being universally abandoned. On the contrary those who have a background and an experience with them are strengthening this phase of their work today. It is only the inexperienced newcomers who are dropping out"

"The first step toward eliminating petty thievery is to centralize factory supplies and set a definite price upon every article, charging the department requisitioning that article the established price. By so doing the employee is given opportunity to buy conveniently and as a result it does not occur to him to steal"

Trade Winds

It is our desire to make this publication an occasional and wholly informal reflection of the current of Business thought and achievement, dealing with all the many angles of the Business Machine without bias or restraint.

Since "Trade Winds" will at times partake of the nature of a forum, The Union Trust Co. does not necessarily endorse views, opinions or statements contained herein except such as bear the authorship of our officers.

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CLEVELAND, OHIO

Business Conditions

By C. L. Bradley
Vice President, The Union Trust Co.

June 23, 1924

ANY comments upon business conditions of the moment and immediate future must necessarily be predicated largely upon "the political situation."

While "government in business" is sometimes complained of, even the most casual observer must observe that in presidential years, "politics" as a business deterrent far outshine "government interference."

Since April, the uncertainties latent in the nominees for president and vice president, together with a possible reaction in event of their respective elections and the abnormal backward spring weather conditions have brought business into "low gear."

While personally I cannot help but feel that the degree of importance given to the political situation is exaggerated, the facts remain that we are in the midst of a perfectly normal pre-presidential election slump.

It is likewise evident that practically every fundamental business condition is sound and, if anything, actually improving.

The present quietness is an ephemeral condition. I do not feel that it reflects any physical disease of the business machine but rather a passing mental state from which we might rebound quickly.

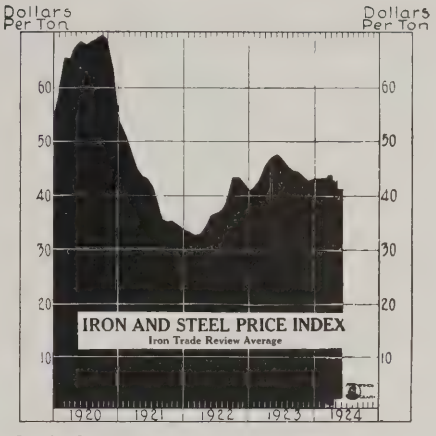
Of course until very recently, the weather conditions have been bad. This materially affected every business and extended its depressing touch into every channel of trade, but, from the practical standpoint, it was not a severe blow to the health of the business structure.

At the present writing the weather seems to be on the mend. Summer is apparently here. The trade and the plantings lost through the inclemency cannot be regained, but on the other hand they will not be a total loss.

Money is remarkably "easy" and there is a reservoir awaiting the first requirements of expanding business. We need have no fear from that quarter.

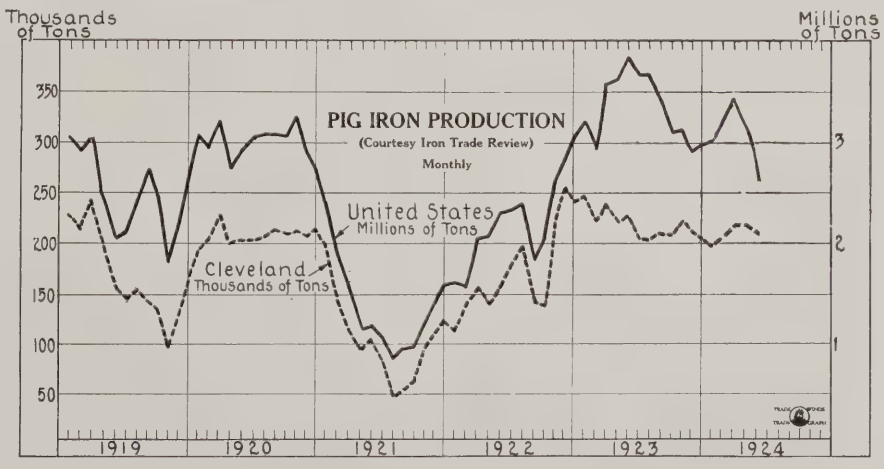
The underlying demand for lower prices has found an excellent ally in this pre-election dullness, and prices in the vast majority of lines are holding their own with difficulty or slipping slightly under the pressure of distress sale or anxiety for comparatively large orders.

The general tendency, as always, is adequately pictured by the iron and steel price index, which has been gradually slipping downward, while the unfilled orders of the United States Steel Corporation have been following the same tendency.

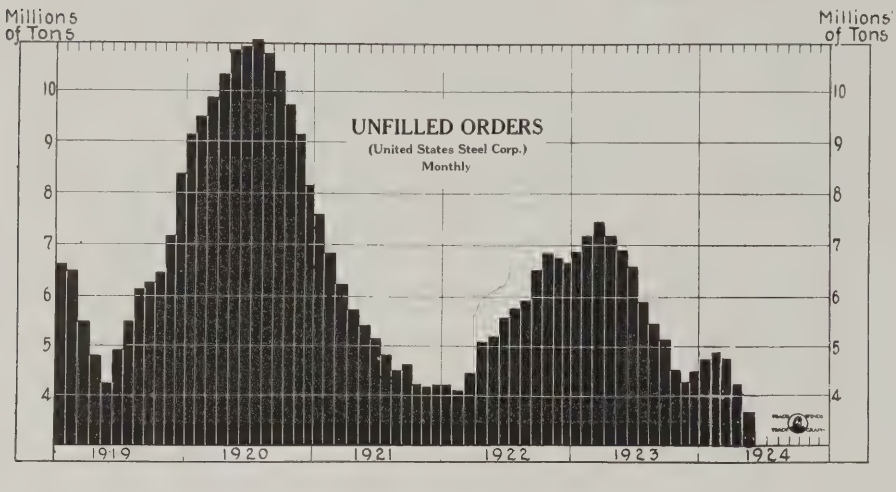


Gradual recession has continued for iron and steel prices. The composite market index compiled by Iron Trade Review averaged $41.30 a ton for May against $42.33 in April. The index is 6 per cent under the peak of this year and 13 per cent under the high mark for 1923. Compared with 1913, there is a gain of 50 per cent. Some steel products are tending to steady, following deep curtailment of production

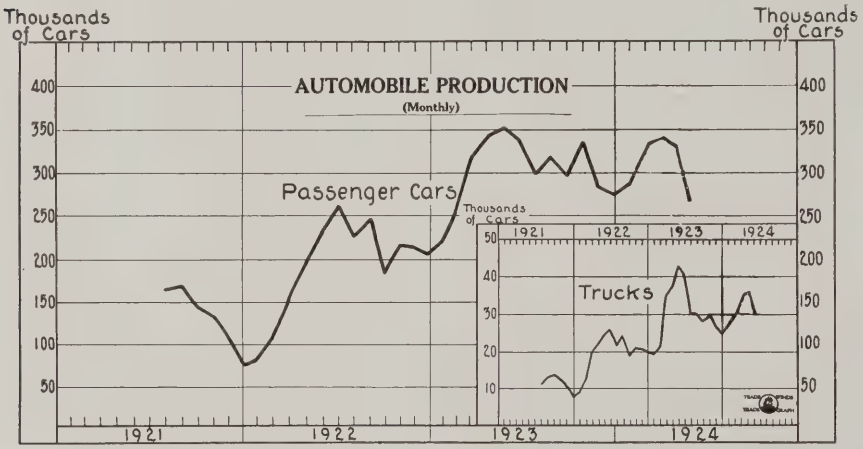
Building has received a tremendous impetus with only a slight sloughing off during the past two months. This particularly applies to home building and the general feeling is that this decided spurt in the building industry reflects the general impression that now is a good time to build a home, owing to the price level of materials having reached a fair degree of stability at a comparatively low point. Likewise, building labor, released from the pressure of manufacturing operations, is rendering more efficient and more interested service. There



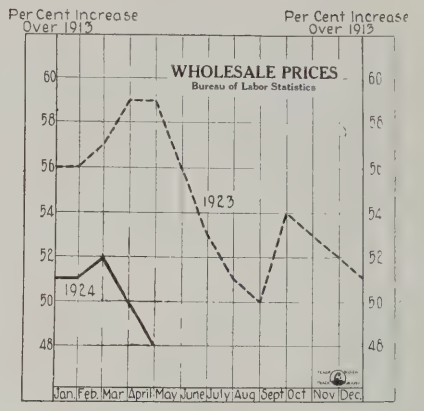
The decline in pig iron production in May was the most severe in the history of the industry. The month's output was 2,631,248 tons, a drop of 595,000 tons from April. The daily average rate of production was 85,000 tons recession of 21 per cent from April, to the lowest point since August 1922. During May, 46 blast furnaces became inactive, the largest monthly reduction since March 1921. In Cleveland, production of pig was 224,200 tons against 214,600 tons in April



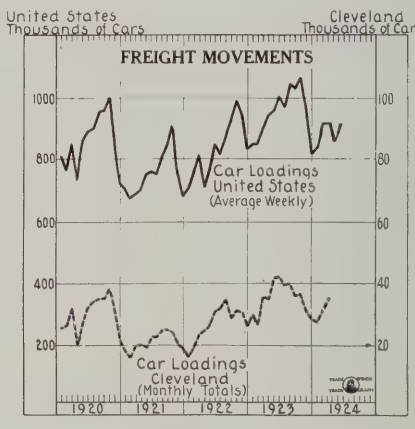
Production in the steel industry this spring mounted to unprecedented heights with unfilled orders only slightly above those for the lowest point of the 1921 depression. This reflects the extreme restraint upon future buying. On May 31, bookings of the United States Steel Corp., dropped to 3,628,089 tons, a decline of 13 per cent in a month. They are now the lowest since November 1914, and are 12 per cent smaller than the extreme bottom of the great depression three years ago



The production of automobiles in the first five months of 1924 is estimated at 1,742,832 passenger cars and trucks. This is a greater number of cars than was ever produced in any one full year before 1917. It indicates a six months' production of around 2,000,000 automobiles, or more than the record for any year prior to 1920, when 2,205,000 cars were made. The total for five months exceeded that of the same period of 1923 by 94,000 cars. In May, preliminary estimates place the output at 301,200 cars. This was a decline of 19 per cent from April and of 23 per cent from May 1923, the peak month for all time


Per Cent Increase Over 1913
Per Cent Increase Over 1913
WHOLESALE PRICES
Bureau of Labor Statistics
1923
1924
Jan. Feb. Mar. April May June July Aug. Sept. Oct. Nov. Dec.

The course of commodity prices is downward. Since February, the decline has been steady but not precipitate. The wholesale price index compiled by the bureau of labor statistics stood at 48 per cent over the 1913 average in April against 48 per cent above in March and 59 per cent above 12 months ago. Prices have fallen 7 per cent in a year



Car loadings throughout the country during May were distinctly higher than in the preceding month. Gains in coal and ore movements largely account for the increase. In the week ended May 24, car loadings touched the highest point since the middle of March. The total, however, continues to lag about 10 per cent behind the corresponding period of 1923. With that exception, freight movements this year are the highest for the season ever recorded

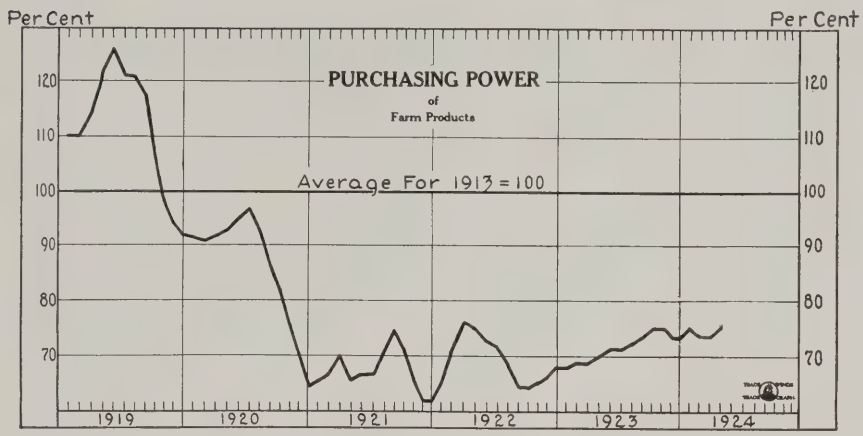
seems to be a plentiful supply of labor and the increase in construction, extraordinary even for this season of the year, indicated that builders are taking advantage of the situation.

Automobile production has slumped off, concurrent with its usual practice as mid-summer approaches. New models are being flung into the arena to attract new purchasers. But production for the moment remains at a comparatively low ebb even for the season. The complications of automobile merchandising have increased to a point where a battle royal in the fall is anticipated, with the public acting as judge of the popularity of the newer types and mechanical appliances which will be offered. The industry is expecting an excellent fall.

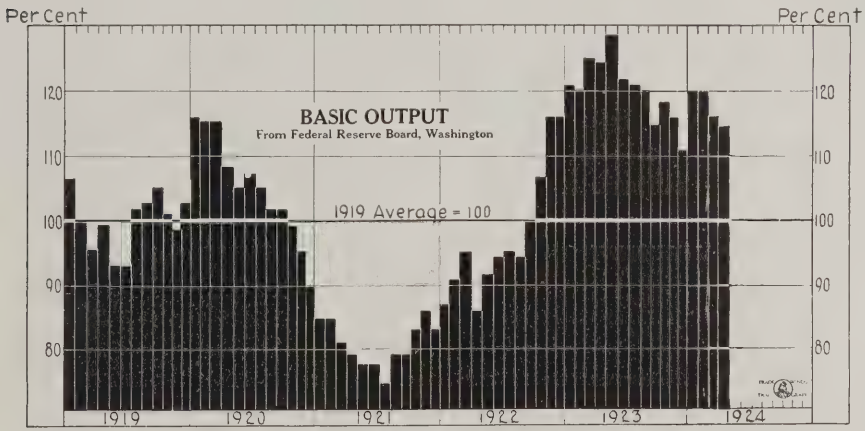
Low as stocks of merchandise have been in the past, they are, if anything, lower today. Merchants are operating on inventory which would have been considered ridiculous but a few years ago. A thirty-day manufacturing inventory is the rule rather than the exception. Ford is said to have whittled his inventory down to a fourteen-day supply. Obviously the least flutter of increasing demand would immediately reflect itself onto the manufacturer.

The public is saving money, which indicates a stored-up surplus of purchasing power which will be realized as soon as the same public feel that prices have reached a comparative low ebb and the presidential uncertainty gives way to certainty.

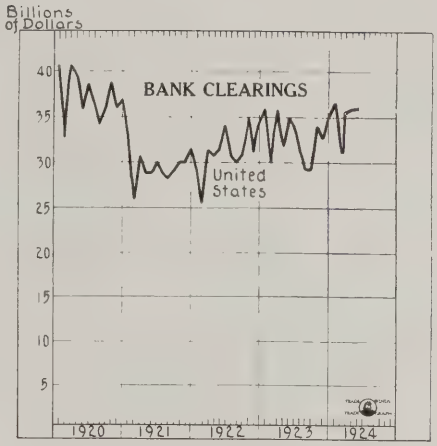
My personal belief is that a general strengthening of business spirit will not wait until November elections. The present political uncertainty, plus the normal sloughing off characteristic of the summer, have combined to exaggerate the present condition. This, I believe.



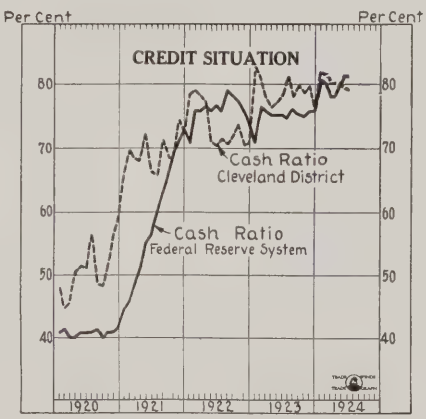
The purchasing power of farm products in April was the highest reached during that month in any year since 1920. According to the department of agriculture, the purchasing power index stood at 76 per cent of the 1913 average in April. In March, it was 74 per cent and in April 1923, it was 70 per cent. The gain over 12 months before was 9 per cent. The average of farm products prices is now only 6 per cent below the general level of wholesale commodity prices. At the bottom of the depression in 1921, farm prices sunk to 20 per cent under the general level



The extraordinary upward swing of the pendulum of production in basic industries early in 1924 has been followed by an equally sharp decline. In February, the federal reserve board's index of basic output, corrected for seasonal variation, climbed to 20 per cent above the 1919 monthly average. In March and April, the indices stood at 16 per cent and 14 per cent above the 1919 basis, respectively. This sharp curtailment is tending to lessen the danger of overproduction in industry



May brought an increase in the volume of bank clearings for the country. The gain did not reflect an expansion in trade activities, however, but rather indicated a heavier volume of bond transactions. Clearings in New York city showed an increase of 8 per cent over May 1923. Outside of New York city, clearings decreased 3 per cent from one year ago, indicating contraction in commerce



Easier money conditions have appeared in Cleveland and in other districts in recent weeks. The Cleveland federal reserve bank has reduced its rediscount rate from 4½ per cent to 4 per cent, following similar action previously by the New York federal reserve bank. A slight gain in commercial rediscounts has resulted. The cash ratios of the federal reserve system and of the Cleveland bank remain around the high level of approximately 80 per cent

is the general impression, and business men, while regretting present slowing down, are generally satisfied concerning 1924 as a business year.

It seems impossible that the buying public can continue to store up their demand indefinitely. Ultimately they must discover that most manufacturing today is being done at little if any profit. Prices have, or must shortly, reach a low point beyond which even the most efficient manufacturer cannot go. In the meantime, the manufacturer with a plant of lesser efficiency will have to shut down and comparative shortage will be felt, the prices will strengthen and the public will come back into the market, automatically creating a forward movement.

The conclusion of the Democratic Convention will replace one uncertainty with a lesser uncertainty. Business will be able to estimate the comparative strength of the contestants for popular political favor and can plan accordingly. This will help the situation.

In the meantime fundamental conditions are improving. The mental condition is at the beck and call of almost every will-o'-the-wisp, but it seems likely that it likewise must improve, as uncertainties give way to certainties, as prices reach an admitted low level, as the public interprets this low level in terms of "buy now," and as the reflex of their months of economy and demand for lower prices reaches a turning point and the ebb tide gives way to flood.

Briefly: This is no time for pessimism for pessimism is rather an indication of a lack of understanding of what constitutes an essential and a non-essential. This is merely a station stop; it is not a breakdown. It was anticipated and forecasted. The train is in excellent condition. The engine has not stalled. We have merely gone into a temporary and not unexpected condition of "intermediate gear."

Canal Boats and Other Ancient and Uneconomic Diversions

By David Jameson

President of The Citizens National Bank of New Castle, and Formerly a Member of the L. E. and O. R. Canal Board

Men talk about "a ship canal" between Lake Erie and the Ohio River, say between the lake and Pittsburgh. When they so talk, they talk about the physically impossible, if by a ship canal they mean a canal to be navigated by lake boats with upper works conformable to the laws regulating lake navigation. The only canal that could operate under the many highway and railroad bridges, would be a shallow barge canal, and this is the only type of waterway that has ever been considered. If we can remove this common error, we can at the same time remove some of the appeal which the idea has made to the popular imagination.

There are forty shallow barge canals in this country and practically all of them have been financial failures. That is, they have not earned and paid interest on their cost. The State of New York has gone farther than any other in the construction and operation of canals. It has been justified in doing so by reason of its location between the great lakes and tide water, and a desire to connect with one another its numerous important rivers and lakes. If we are to expect canals to be operated upon ordinary business principles, a study of the experience of the Empire State should be of value. Some of the engineering problems of the Lake Erie to Hudson canal also have counterparts in the proposed Pittsburgh Canal.

Water Requirements

The water supply for the New York main canal was regarded as a question of great difficulty. Six artificial lakes were constructed to furnish water for the summit level. This summit level is east of Oneida Lake, between locks 20 and 21. The summit level of a canal is usually its *pons asinorum*, or big job. Many canals have failed because their summit levels were arid. The summit level of the New York Barge Canal is 18 miles long. That of the proposed Lake Erie and Ohio River canal is 30 miles long.

The summit level of the Pittsburgh Canal would be at elevation 900. The summit level of the New York canal is at elevation 420. The elevation at the Niagara River is 560. These are feet above sea level. That is, the New York Canal is 140 feet below Lake Erie and the Niagara River. The Pittsburgh Canal is 330 feet above Lake Erie. The water supply for the Pittsburgh Canal would have to be raised 480 feet higher than that of the New York Canal. Those figures spell the difference between practicability and impracticability. Water flows by gravity from Lake Erie into the New York Canal, and the first 100 miles of water in the barge canal is Lake Erie water. Not one drop of water for the summit level of the Pittsburgh Canal could come from Lake Erie. Until some way is found to make water flow up hill, there is sure to be a deficiency of water on the high summit level of the proposed Pittsburgh Canal.

Economic Features

The Superintendent of Public Works has charge of the New York canals. From his comprehensive

"In the early days on the Erie Canal this method of transportation was considered to be the last word in advance civilization"

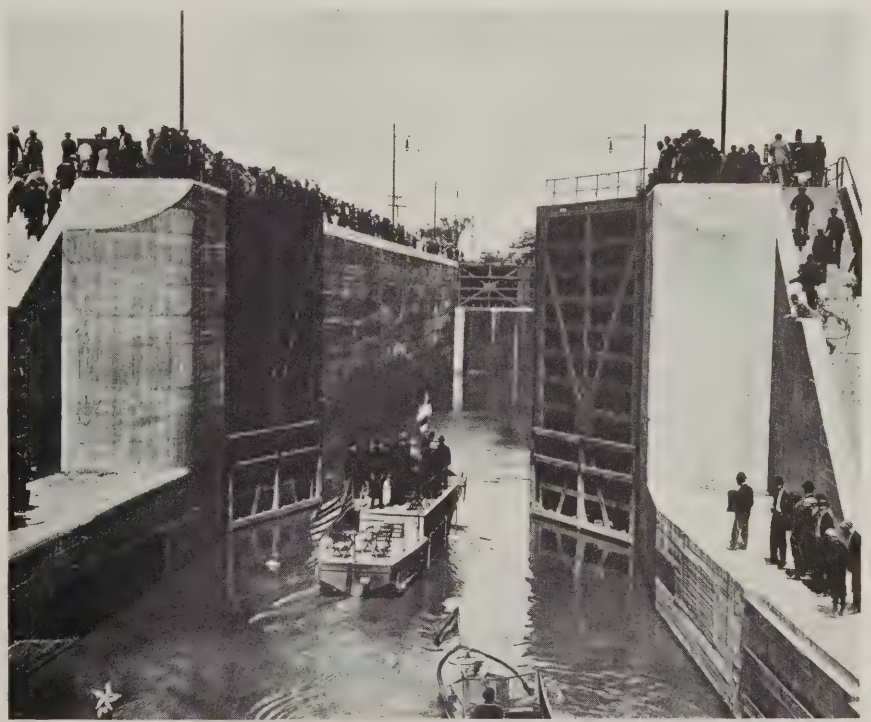
reports much valuable light upon canal problems can be obtained. The portion of the reports dealing with the New York Barge canal are especially interesting.

The barge canal was finished and thrown open to use five years ago. The reports cover five years of operation. In addition to the barge canal connecting Lake Erie with the Hudson, New York has a system of canals, which reach several of the small lakes in the state, also Lake Ontario at Oswego, and, through Lake Champlain, and certain Canadian canals, the St. Lawrence River and Montreal. Their total canal mileage is 525. Then they have 382 miles of canalized rivers and lakes, making the system of 907 miles.

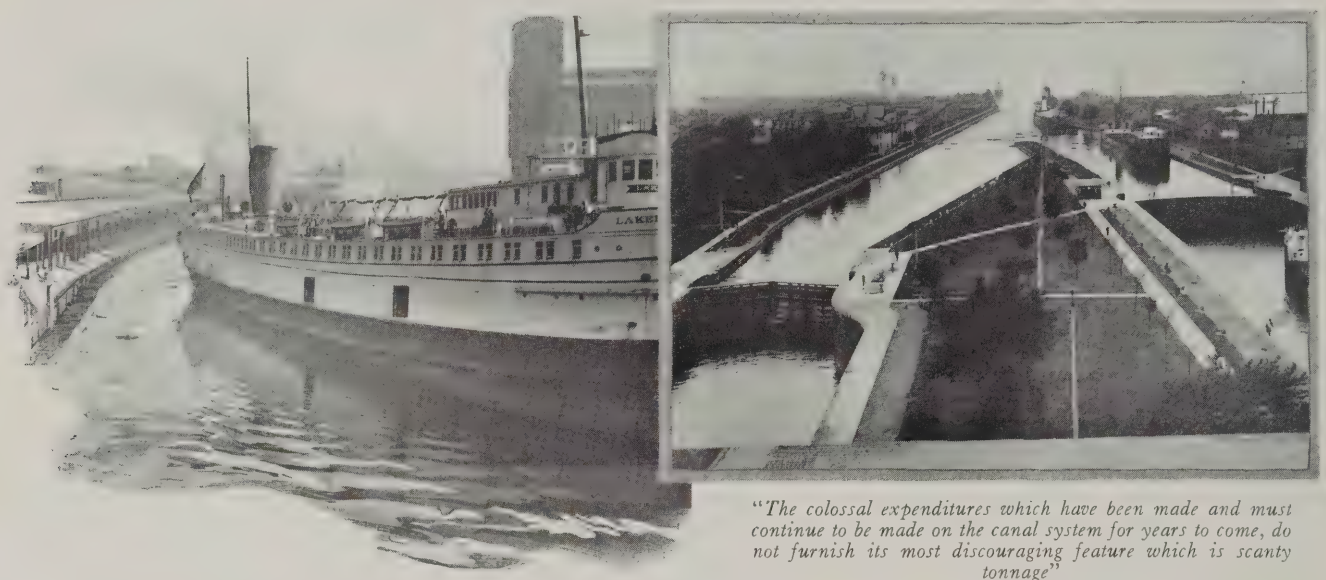
Revenue

In 1922, New York received from its Canal Department a revenue of $209,305.54. There was expended for maintenance alone $2,297,927.79, say 10 times the amount of the revenue. The figures are startling. The canal system had cost $300,000,000. (See report of Supt. P. W. 1919, P. 98). Of this great sum $170,000,000 has been expended within comparatively recent years. The interest on the first named sum at only four per cent would be $12,000,000.00 per annum, that on the last named sum $6,800,000.00 per year. The sinking fund for the ultimate payment of the bonds would require several million more. Then there was a little matter of $345,262.00 expended during the year for "betterments." In short this ancient system of transportation in whose belated footsteps we are told we ought to walk, or wade, cost the Empire State last year somewhere between 12 and 20 million dollars, depending on whether we count interest on the total cost or only on the recent expenditures; or whether we charge the enterprise with interest on the total investment or simply on what it still owes. This large sum was all collected from the people in taxes. They paid it because somebody had thought the canal would furnish to shippers cheaper transportation. If it did so, it was because the taxpayers made the shippers a munificent present. Or, to state it the other way around, because the shippers were permitted to levy tribute on the taxpayers.

In selecting 1922, for analysis, I have not selected the year most unfavorable. In the last five years, or since the rebuilding of the New York Canal system, the total revenue from the canals to the state amounted to $799,561.00. During the same



"In the year 1922, the state of New York expended merely for the item of maintenance of canals approximately ten times the amount received from them"



"The colossal expenditures which have been made and must continue to be made on the canal system for years to come, do not furnish its most discouraging feature which is scanty tonnage"

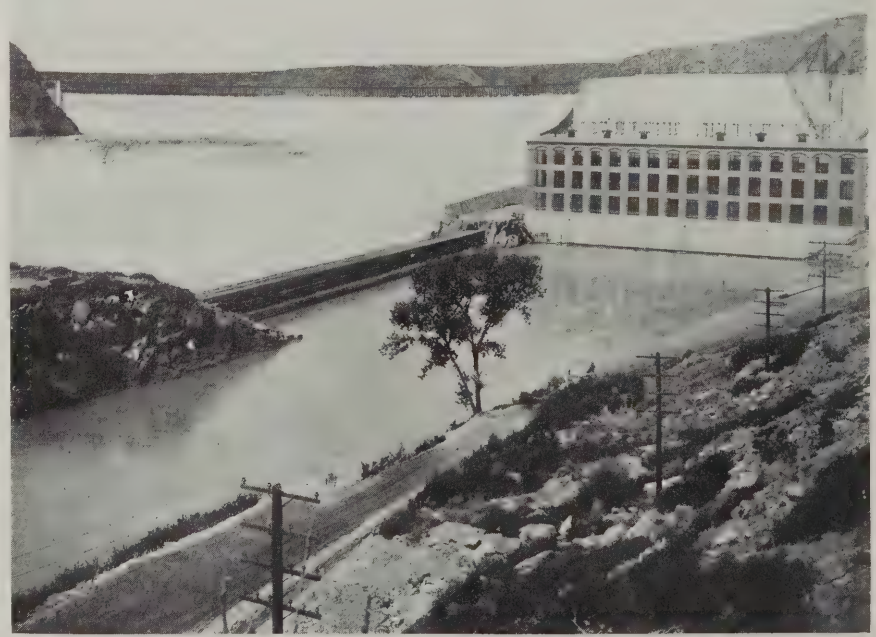
period, the expenditures for operation amounted to $9,924,384.00 or more than 12 times the revenue. During the same five years, the state expended for so-called betterments $2,167,683.00. To this large deficit there must still be added each year of the five the interest on the cost of the Canals, a matter of from 7 to 12 million dollars. In five years, it is safe to say the canals have cost the State over and above all revenue, from 45 to 70 million dollars, nearly all for interest and expenses of operation. It is not too much to say New York's unwise investment in canals is costing its people from $40,000.00 to $50,000.00 every day of the year, open or closed, summer or winter.

The colossal expenditures which have been made, and must continue to be made on the canal system for years to come, do not furnish its most discouraging feature. This comes from its scanty tonnage. The small business being done by the waterways would seem to furnish conclusive evidence that the people do not want this method of transportation, that the day of the canal boat has passed.

Traffic

The potential annual capacity of the New York Canal System is 20 million tons. Its actual capacity is difficult of ascertainment. The greatest unsolved problem of the proposed Canal from Pittsburgh to Lake Erie, was probably that of water supply. Close to it were the doubts as to the carrying capacity of the waterway. There is much in the New York report to justify these doubts.

When an engineer undertakes to tell us the potential capacity of a canal, one of the primary factors considered is the depth of the water. This controls the draft of the boats. A boat should have at least a foot of water under it. If boats are loaded for 12 feet of water, a lesser depth at any single place would stop navigation. The estimates of the potential tonnage of the Pittsburgh Canal were based on a depth of 12 feet, and yet no boat loaded for 12 feet could enter the Ohio river. There is not 12 feet of water in the Ohio. The



"It is somewhat remarkable that hardly anybody would propose that the public should build a railroad, yet they will advocate the building of a canal, notwithstanding the fact that hardly one of the kind has ever paid its operating expenses"

potential capacity of the New York Canals is undoubtedly based on a draft of 12 feet. This would permit of boats drawing 11 feet. On Page 44 of the 1922 report, the Superintendent of Public Works says, "I did not recommend the loading of boats to greater than 10-foot draft." This would cut down the potential capacity about ten per cent. The average draft of the boats in use was probably not over nine feet.

However the reports disclose other facts which indicate that the capacity of the New York Canals has been much over-estimated.

Reducing the draft of the boats surely cuts down the capacity of the canal and again proves that theoretical, estimated, or potential capacity and actual capacity, attained in practice, often vary greatly. There are some indications other than the draft of the boats that show such variations between theory and practice on this canal. There was some increase in the canal traffic in 1922, and we read that while the waterways hauled only one tenth of their potential capacity, there was some crowding. "As a necessary incident to the increased business of the present season, on some days and at some localities congestion of boats has occurred." After discussing this congestion, the report proceeds, "I can well see that difficulties of the nature referred to will continue to exist and even grow more serious as the number of boats increases." He suggests "as a remedy" the widening of the narrow sections of the canal and the building of additional locks alongside the present ones at several important points along the route. If, carrying so small a tonnage, the boats are already crowding each other so much as to suggest enlarging the capacity of the waterway, one may well be skeptical about the real capacity of the canals.

With the actual capacity of the New York Canals so problematical, the saving in freight to shippers so doubtful and the expense to the public so great, who can find in the experiment made by New York anything but a warning to others.

I have said the reports give the potential capacity of the New York System as 20 million tons. There passed over some parts of its waters last year 1,873,434 tons, less than one tenth of its capacity. The total for the entire canal system is given as 2,260,763 tons; but they tell us only 83 per cent of this actually passed over the waters. Of the larger figure just given, 1,485,109 tons is given as the tonnage of the barge canal (meaning the canal from Buffalo to the Hudson river). If only 83 per cent of this went over the waters, and 17 per cent simply "passed over terminals" without entering the canal, the actual tonnage transported through the barge canal in 1922 would be 1,232,640 tons.

It is difficult to estimate the probable saving to shippers over what they would have paid the railroads. It was certainly not large, else more shippers would have used the canal. I think one dollar per ton would be too big an allowance. This would have saved shippers about two and one quarter millions, and have cost taxpayers 12 to 20 million. This may be business, but it is not good business. Fifty cents per 100 pounds or say $10.00 per ton, was the average all rail class rate on freight, Buffalo to New York City. Much of the freight carried by the canal was carried for shorter distances. The minimum canal rate, Buffalo to New York City was perhaps $8.95 per ton. But if the full through rate per ton had been paid for every ton of freight that floated on the waters of the barge canal, even for only an hour, if we assume that all the freight was through freight, the average saving per ton to shippers would be $1.05 per ton, or $1,294,272.00 on the 1,232,640 tons. To save this million and a quarter to shippers cost the taxpayers more than ten times that amount. I have said the minimum canal rate Buffalo to New York was probably $8.95; however we read "Canal lines (boats) published no tariff schedules setting forth their rates." The largest item of freight was grain. The report says the rate generally applied at the opening of navigation, was eight cents per bushel; but it also says (P. 11) "That some shippers of grain were

"This ancient system of transportation, in whose belated footsteps we are told we ought to walk or wade, cost the Empire State in 1922, between $12,000,000 and $20,000,000—depending on whether we count interest on the total cost or only on the recent expenditures; or whether we charge the enterprise with interest on the total investment or simply on what it still owes"

paying 14 cents per bushel for the movement of wheat from Buffalo to New York, a rate higher than the 'all rail' rate." It seems that canal boatmen are not averse to charging "all the traffic will stand." The absence of any fixed published rates, makes it impossible to make any accurate calculation of the saving to shippers who used the canal, or who may use it in the future. The large sums absorbed each year for maintenance, betterments and interest are certainly impressive; but perhaps the most condemning feature in the history of the New York Canals has been their inability to build up a substantial tonnage.

Tonnage Shrinkage

The New York reports give a statement of the freight transported by their canals each year from 1837 to 1922. The apparently natural, continual and inevitable shrinkage in the canal tonnage up to last year would seem to point to the ultimate extinction of the undertaking. The figures would seem to furnish conclusive arguments, against the attempts being made to induce Pennsylvania, Ohio and the Federal government to embark in this assured losing game by trying to run a canal from Pittsburgh to Lake Erie.

The tonnage of the New York canals reached its peak between 1867 and 1873. The table shows it has been going down almost ever since.

Tonnage	
1867 to 1873, ave.	6,500,000
1883	5,664,339
1893	4,331,963
1903	3,615,385
1913	2,602,035
1918 to 1922, ave.	1,507,802

The actual tonnage which passed through the barge canal in 1922, the fifth year of the operation of the reconstructed canal was about 1,232,640, or 83 per cent of the gross tonnage of 1,485,109 passing over both the canal and its elevators, terminals, etc. One gets the significance of these figures by some comparisons. On the basis of their 1918 report (a later one is not available), the Pennsylvania system of railroads would haul in 12 days more freight than all the 907 miles of New York Canals costing $300,000,000 had hauled in five years. The little Pittsburgh & Lake Erie railroad, less than half as long as the New York Canals, hauled in the month of May more freight in ten days than the rebuilt New York barge canal has hauled in its biggest year. This little railroad would in 10 days carry all the tonnage carried by the New York barge canal in any one of the last five years. The capital stock of this railroad was less than $36,000,000 and its bonded indebtedness only a little over $6,000,000.

If we are going to get the government to build anything between Pittsburgh and the Lake, we ought to get it to build a railroad instead of a canal. Then when we have made a failure of it, as we surely will, we can sell it, or at worst, give it to somebody. We could not even do this with a canal, neither could we now adopt Sunset Cox's suggestion, as to other canal failures, and macadamize it. Macadam is as much out of date as are canals. We would have to put a concrete bottom in it; then we could operate with motor trucks instead of canal boats. We would still need to devise some way to keep the dust laid during the summer.

It is somewhat remarkable that hardly anybody would propose that the public should build a railroad. Even the Chambers of Commerce along the line would not endorse such a project, and a Chamber of Commerce will ordinarily endorse almost anything but a note. The same people who would frown on a proposal to build a railroad, or a modern, successful method of transportation, will advocate the building of this type of canal, notwithstanding the fact that hardly one of the kind has ever paid its operating expenses, much less interest on its cost. Barge canals, such as the Lake Erie and Ohio River Canal would have to be, have the same chance to succeed, in competition with railroads as ox teams would have in competition with motor trucks. The canal boat is the ox-cart of commerce. It has been replaced by a better method.

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S E P T E M B E R ~ 1 9 2 4

What Are We Doing with Our White Coal?

By O. D. FOSTER

Three Score and Ten—and After

By ROBRET HENDERSON

Second Vice President, Equitable Life Assurance Society

Business Conditions

By C. L. BRADLEY

Vice President, The Union Trust Company

The Banker in Industrial Reconstruction

By J. R. KRAUS

Vice President, The Union Trust Company

Making the Work Boss the Job

Personnel Methods of a Cleveland Manufacturer

By D. K. SNOW

The Use of Business Statistics

By MORTIMER B. LANE

Editor, Survey of Current Business, U. S. Department of Commerce

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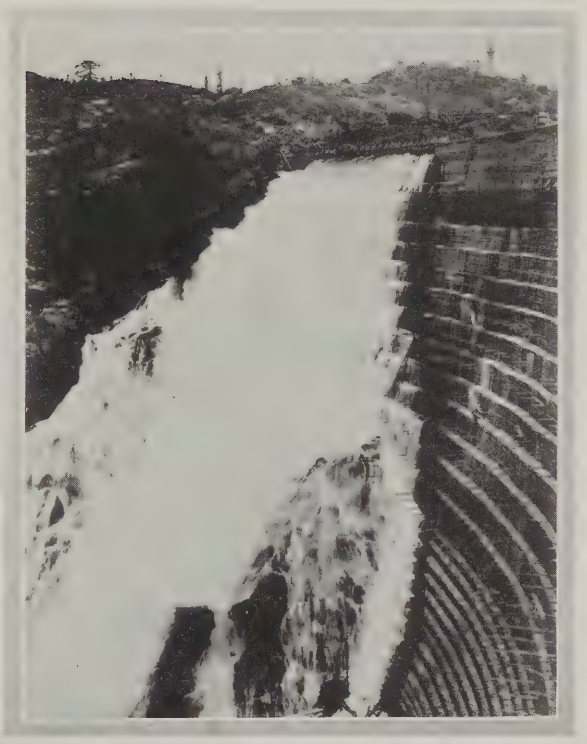
SEPTEMBER 1924

What Are We Doing With Our White Coal?

By O. D. FOSTER

THE recent consolidation of five big power companies in the eastern district, brought about in an effort to combine their resources in the interests of superpower and the elimination of waste, brings up to us squarely the question of just where the United States stands in relation to that great source of all our future production, the development of sufficient power to run our industries at a cost low enough to hold our supremacy in mass production. This means first of all, elimination of waste in the production of power; second, such economic distribution that industry will be quickened, and third, intensive development of all our power resources.



"We Americans are the greatest power users and the greatest power wasters in the world"

We Americans are the greatest power *users* and the greatest power *wasters* in the world. Responsible authority agrees that there is more than 65,000,000 horsepower of water available in the United States, whereas more than 50,000,000 horsepower is now being generated by steam. Actually over 50,000,000 horsepower of this water power is running to waste in our streams. This could be developed without any new inventions or discoveries. Its development would make it possible to shut down every steam engine and steam locomotive and turn the motive power of all our industries and railways to electricity. This 50,000,000 horsepower of water power is equivalent to the consumption of 300,000,000 tons of coal per year.

The annual coal production of the United States runs something over 500,000,000 tons. Of this amount it is estimated that close to 350,000,000 tons are consumed in the production of steam power. It is of interest to know that the railroads of the country burn approximately 160,000,000 tons of the coal they carry over their lines and that coal amounts to from 40 to 50% of their freight.

Statisticians tell us that at the present annually increasing rate of consumption, there will be no coal left in the United States and Alaska within eighty-four years. The fields of the eastern district are likely to be exhausted within fifty-nine years and twenty-five years is probably the maximum of the life of the Pittsburgh vein. In the face of these conditions our waste of potential power is stupendous.

The United States Geological Survey has estimated that the minimum potential water power of the world totals 439,008,000 horsepower, of which only about 23,695,080 horsepower has been developed. In a survey made from a compilation of data secured during 1921, it was found that there are in the United States 3,120 water power plants of 100 horsepower or more, with a total capacity of installed water wheels of 7,926,958 horsepower. Of this total, 78% is in public utility plants and 22% in manufacturing plants. New York continues as the leading state in the amount of developed water power, with 1,291,857 horsepower, and California stands second, with 1,149,099 horsepower.

During the last decade the use of

electrical current has marked astonishing progress. Statistical experts, figuring on the continually increasing ratio of demand, tell us that the electrical energy generated will triple in the next ten years.

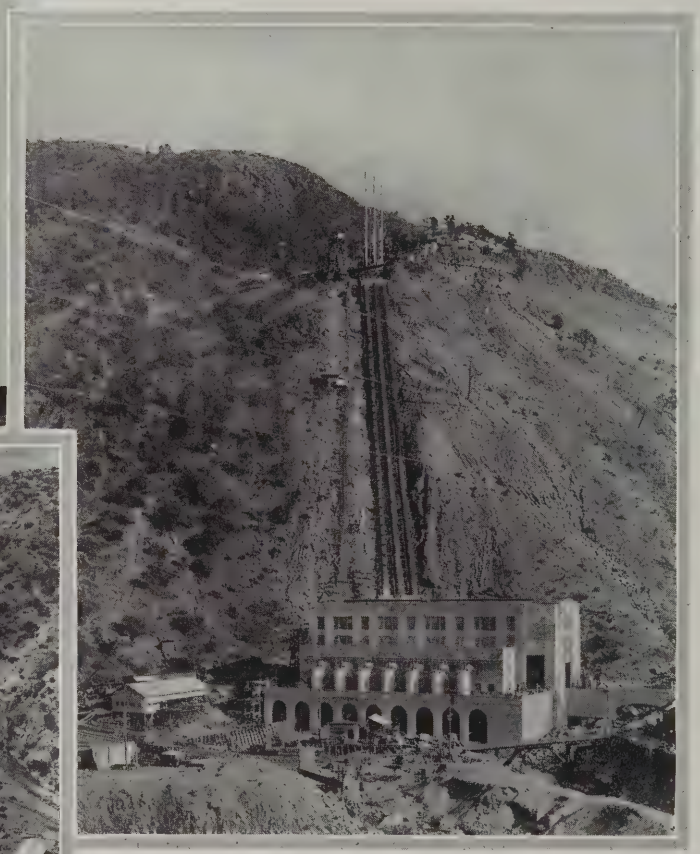
Not long ago the editorial staff of *Electrical World* made a survey of the world's consumption of electricity during the year of 1920, the latest complete figures available.

It was found that throughout the world during the year of 1920, the total consumption of electrical energy amounted to 99,456,300,000 kilowatt hours. This was at the rate of 57.8 kilowatt hours per inhabitant. Of this amount 15,183,300,000 kilowatt hours were consumed for lighting purposes and 84,273,000,000 kilowatt hours for industrial activities. It was estimated that the energy generated by the steam and hydro generating plants of the world probably totaled about 115,000,000,000 kilowatt hours during 1920.

Yet in spite of this enormous consumption, it was estimated that of the 1,720,000,000 inhabitants of the world only 111,822,000, or 6.5%, are living in electrically lighted dwellings, which shows in a measure the possibilities offered for future development.

The huge output of electrical energy cited above was made possible by an estimated generator installation of 46,427,690 kilowatts, of which 30,192,480 kilowatts was operated by fuel power and 16,235,210 kilowatts was hydro electric.

Further investigation disclosed that the consumption of electrical energy in the United States during the year 1920, practically equalled that of all the other nations in the world combined. If we include the energy generated in private generating plants, the United States consumed a total of 49,802,000,000 kilowatt hours during that year. Of this, 6,870,000,000 kilowatt hours were used for lighting purposes and 42,932,000,000 kilowatt hours were used in factories, mines, farms, and



The illustrations depict the Southern California Edison plant, a recent power development

"The consumption of electrical energy in the United States in 1920 practically equalled that of the other nations of the world combined"

"The United States Geological Survey has estimated that the minimum potential waterpower of the world totals 439,008,000 H. P., of which about 23,695,080 H. P. has been developed.

"We are really only just stepping over the threshold into the great domain of electricity. Super-power is the big business idea comprising the eventual linking of all the electrical power in North America into one vast unit, gridironing the country with lines which can be tapped to supply sections heretofore out of reach of power. This means the opening of new territory and the development of manufacturing interests in locations better suited to production because of their natural resources."

for the operation of electric railways. During the year 1922, Germany was second in consumption if the various British commonwealths were considered separately, and while the United States outstripped the other countries in general consumption, figures showed that the little republic of Switzerland led in consumption per inhabitant, with a record of 700 kilowatt hours per person, Canada came next with 612 kilowatt hours per person, Norway 493 and the United States with 472.

We are really only just stepping over the threshold into the great domain of electricity. Electrical development is still in its earliest stages. Giant power developed to its full capacity is as yet an achievement which is unthinkable. One of the most spectacular of our dreams for the future of this country is concerned with the possibilities which electricity offers in its development. Super-power is the big business idea applied to electrical production. It comprises the eventual linking of all the electric power in North America into one vast unit, gridironing the country with lines which can be tapped to supply sections heretofore out of reach of power. This means the opening up of new territory and the development of manufacturing interests in locations better suited to production because of their natural resources. Electric power has always blazed the trail of better development. Cheap, adequate and dependable power is vital to every progressive interest of the country. Railroads are turning toward electrification, farms and villages are growing users of power. It tends towards higher ethical standards, increases the productivity of individual effort and makes it possible to apply mechanical methods to routine performance. It is the application of power to the problems of living which has made events march so rapidly during the last decade, and it is safe to predict that before this century closes the world will have entered into a new era and electricity will be the motivating influence which accomplishes every commonplace as well as major action of our lives.

The linking together of the electrical plants of the country so that power may be conveyed from one section to another as needs arise has long been under consideration by leading engineers, and when the methods for the high voltage transmission of electricity were discovered it added great impetus to the constantly increasing demand for more power. Under this plan generating plants pour all their energy into a common distributing network which acts as a reservoir and from which electricity can be drawn at any moment for any purpose. But the greatest benefit in this super-power is not in long distance leaps, but by passing the surplus *from one system to the next in line.* Its highest con-

sideration is not delivery to the farthest ultimate point, but *re-enforcement of existing facilities and possible sales along the way.* As this net-work of power lines becomes more and more inter-connected, industry will turn to the smaller communities which lie along the right of way. This means cheaper rents, more wholesome living and lower prices.

Under present high voltage conditions, power is transmitted over vast distances, and transmission is rapidly closing up into a continuous belt. At the present time, there are only four gaps with a total of about 25 miles in the inter-connected transmission system along the Pacific coast from Canada to Mexico, which comprises a distance of about 1,400 miles. Gradually this system will be connected through Idaho, Montana, Utah, Colorado, and Arizona and will comprise a circuit of over 3,000 miles. Within recent months, transmission links have been completed in that great central pool of the middle west so that power can be transmitted from St. Paul to Chicago, Chicago to Indianapolis, Indianapolis to Cincinnati, Cincinnati to Louisville, Louisville to Nashville, Nashville to Birmingham and Birmingham to Atlanta, routing it through the various power systems.

Continual examples of the desirability of this method are being shown.

Not long ago, a burn-out near the central station shut off the power in the city of Providence, yet due to connecting transmission, within ten minutes adequate power was flowing in over the lines from four neighboring cities. At Chattanooga it became necessary to shut down the great hydro-electric station for half a day to carry out certain tests, yet the country was kept amply supplied in the meanwhile by current furnished from stations miles away.

The southern states have also shown remarkable progress in interconnected transmission. During a comparatively recent coal shortage, seven large power companies in the states of Alabama, Georgia, North Carolina, South Carolina and Tennessee joined their power resources and projected current over a distance of 600 miles to keep the cotton mills running. Most of this power came from hydro-electric stations, although steam plants were tied in.

Greater facility in transmission has enormously increased the demand for power. In certain metropolitan communities the power load has doubled in the last decade. Increased use of labor saving devices and the natural growth of the population are both pushing the demand. The wage rates of American workmen average about twice those of some other countries, the English, for example, because each American workman directs about twice the power of the worker in England.

The prosperity of a country depends on its productiveness. Production is useless if the output cannot be marketed. Marketing depends for its success on the ability to meet competition. Cost of production is largely influenced by cost of power. It therefore becomes a matter of major importance to see that power is generated at the lowest possible figure. To do so every resource must be utilized, waste eliminated and generating units must produce in maximum capacity at minimum cost.

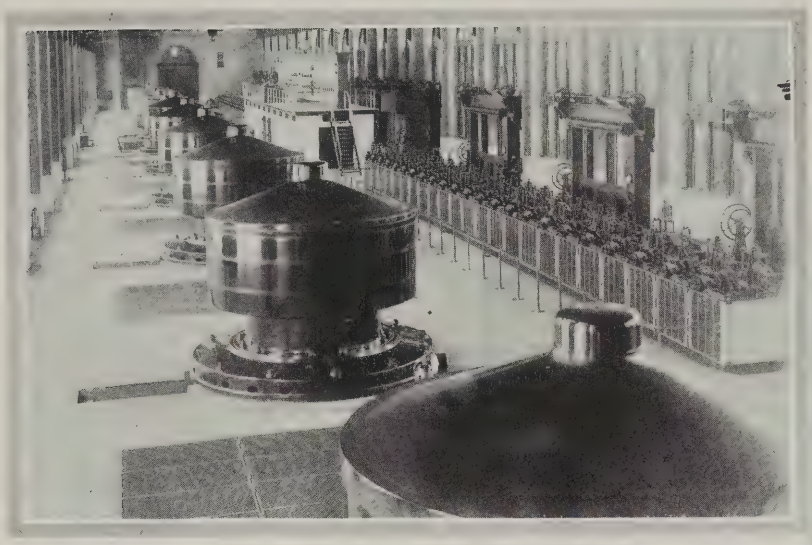
Such great conservationists as Herbert Hoover and Gifford Pinchot have been instrumental in turning the eyes of the people to the fact that the operation of steam plants alone as power producers is productive of the utmost waste, inasmuch as nothing but power is obtained from the coal, and by-products, whose value runs into the millions, go to waste.

One great forward step in conservation has been the location of steam plants in the heart of the coal district at the mouth of mines. This effects a saving of millions of dollars annually. Instead of utilizing the coal for power on the railroads to haul the coal to the various power plants, it is conveyed automatically from the mines to the boilers, saving the coal used for haulage, the freight charges, and making the power plants independent. This plan also includes the construction of coal by-product ovens for the recovery of the tar, ammonium sulphate and the oil, all of which are lost when we burn raw coal. Nitrogen is also an important by-product and it is said that the coal consumed in this country today would yield forty-six times the amount of nitrogen required for fertilization and other purposes. It is therefore evident that in neglecting the natural resources offered by water power and by continuing to build isolated steam plants in arbitrary locations, we are not only wasting available water resources but are also wasting in enormous amounts a product whose supply is ultimately exhaustible, and are only putting it to partial use in the process.

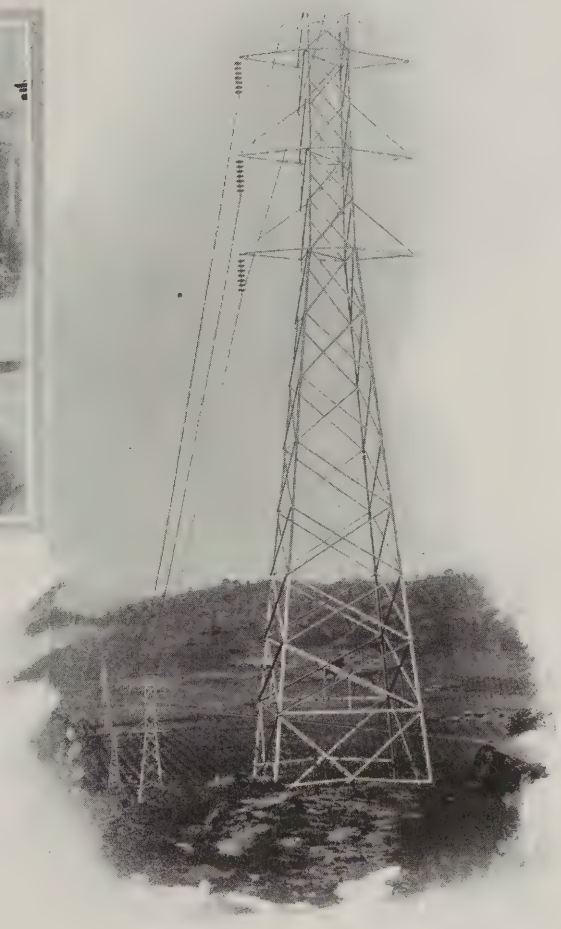
All over the world countries are rapidly turning toward a conservation of natural resources by more intensive use of their water power. Since the outbreak of the war, France, terrorized by her shortage of coal, has bent every effort toward a greater hydro-electric development. Enormous progress has been made in the post war period toward water power development and great undertakings are under way to utilize the vast power generated by the turbulent Rhone. Projects now under advisement for the development of water power in France cover a total of 1,500,000 horsepower. The development scheme for the river Rhone approximates a cost of close to $200,000,000. Italy, hampered in her mechanical development by lack of coal has also turned to her rivers as a source of power and manufacture in northern Italy has been vastly quickened by utilization of the force from the streams which flow so rapidly down from Alpine heights. The great Fiat automobile factory at Turin is one of those which derives practically all its power from this source and hydro-electric development is everywhere looked upon as the secret of economy in the future production of power.

Throughout the west and in the south in this country, water power is rapidly becoming the dominant source of electrical energy, but in the north and east, dependence is still placed on steam. It is true that hydro plants develop far greater efficiency when they are inter-connected with steam plants, because of the natural uncertainty of the water's flow, but the low operating expense of the hydro plant in connection with the possibilities for coal conservation point to it as the ultimate dominating source of power.

The initial cost of the installation of a hydro plant is far larger than



Eleven of the 5,000 H. P. generators at the Niagara Falls Power Station



The Pacific Gas & Electric Company's steel tower transmission line carrying 110,000 volts

that of steam, but when properly constructed it is a permanent asset, its machinery is able to transform into power more than 90% of the available energy of the water and even a large plant requires the services of only a few men. On the other hand one engineering expert gives as his figures for the production of 40,000 horsepower by steam, the un-interrupted service of 1,500 men, to mine, break, hoist, sort, load, transport, unload, store, re-handle and fire the boilers with the coal. Against this two men could handle a hydro-electric plant of the same capacity. Nor does its operating expense increase even under a full load, so the cost per kilowatt hour decreases as the output increases.

Yet it must be remembered that few water powers are of much value if they are not tied in with a steam system. Electricity can be produced from two or more neighboring water powers more cheaply if they are inter-connected and are supplemented by a large steam plant. Water power, unlike steam power, is not fully under human control. One of the characteristics of the majority of rivers is that the flow varies greatly not only in the different seasons, but also from year to year at the same periods.

For example, the upper waters of the Hudson can generate over 500,000 horsepower for a part of the year, but in dry seasons the flow may not be sufficient for the generation of 5,000 horsepower. Similar conditions apply to all rivers in this part of the world with the exception of the Niagara and the St. Lawrence, which have an approximately uniform flow because they are fed from the enormous reservoirs of the Great Lakes. By connecting several water power plants the variations in the rivers' flow equalize each other and less steam power is needed. Also the larger steam plant uses less coal proportionally for a given amount of power, the overhead is less and there is less variation in the demand for power because of the increased diversity of its use by the larger number of people served. The same rules apply to power production as in manufacturing lines. Costs are less with quantity production which is fairly uniform in its volume.

Any discussion of water power naturally brings under consideration the great projects in this country which are in the public eye at the moment.

When the Federal Power Act was put into operation in the United States in 1920, it was estimated that there was approximately 9,000,000 horsepower installed in all the water power plants, electric and otherwise, in the United States. In the last report issued, for the fiscal year closing June 30th, 1923, the Commission reports applications for permits and licenses for projects involving an installation of 21,500,000 horsepower. Licenses have already been issued upon these applications for 7,000,000 horsepower and construction projects which are actually under way involve the ultimate installation of 2,339,010 horsepower, the cost of these developments being estimated at $207,805,150. The horsepower of projects scheduled to be put into operation in 1923 amounted to 186,010 and in 1924, 260,780.

Almost half of these projects are located in California.

Much of the vast volume of water power in the west is being used for irrigation purposes and something like $700,000,000 has been invested in irrigation projects. The 1919 Census shows 231,541 irrigated farms under operation in the western states. When the Colorado river dispute is finally settled and its powers are harnessed it will open up an opportunity of cultivating four million acres of land which are now a desert and the waste waters can be used to generate energy which will run close to 6,000,000 horsepower. The Columbia river project will also involve the irrigation of something like 1,500,000 acres of land lying in the adjacent valley.

Among the most outstanding projects under development at the moment are the additional installation of the Niagara Falls Power Company, at Niagara Falls, involving a total ultimate development of 601,835 horsepower; the Big Creek project of the Southern California Edison Company, which will have an ultimate development of 540,000 horsepower, and the development of the San Joaquin Light & Power Corporation on King's River, which will cost approximately $50,970,000 and will be completed in 1931. This involves 300,000 horsepower. The Muscle Shoals project, the greatest of them all, under its present plans will have a capacity of close to a million horsepower. In addition there is the great project now under advisement of the improvement of the St. Lawrence River. This will develop between four and five million horsepower, of which half will be in the international section.

Taking these projects individually, the demand for power at the Niagara station is so great that it will be impossible for some time to meet it, regardless of present plans for expansion, yet potentialities are tremendous, for engineers claim that 3,000,000 horsepower can be secured without injuring the beauty of the falls. Time is an important factor in all these developments, for demand is constantly out-distancing constructive possibilities. The Big Creek development, for example, will not be completed until 1935. Its total estimated cost is $61,152,000. If the present plans of the Muscle Shoals project are completed it will consist of three dams; two hydro-electric power houses with a total capacity of 850,000 horsepower and a 100,000 horsepower steam power plant. Its development offers more than the usual amount of difficulties and presents quite clearly one of the reasons for retarded hydro-electric development.

The Tennessee River is what is technically known as a "flashy" stream, that is, a stream whose discharge varies from a small quantity to an enormous amount in a short space of time. The discharge has been known to get as low as 7,350 cubic feet per second and in times of flood as high as 499,000 cubic feet per second. These rapid fluctuations demand special and adequate provision to care for the enormous floods. Such engineering difficulties as this, which occur with considerable frequency in the development of water power sources, have been instrumental in retarding the greater use of water power.

In the proposed improvement of the St. Lawrence River lies one of the greatest hydro-electric development projects of this country. In volume the power would amount to about the sum total of electrical generating capacity today in all the central stations, including both carbo and hydro-electric of New England, New York, New Jersey and Pennsylvania. Moreover, due to the steady flow of the river, this would not only be a twenty-four-hour power but a year 'round proposition, with ample storage for conservation. If this development is put into effect, from twenty-five to fifty million tons of coal, valued at from $100,000,000 to $200,000,000 will be saved each year.

It is difficult to fully visualize the extent to which we will benefit from the gradual extension of power. In the early days when industry was dependent on the use of steam, manufacturing centers were huddled close to the source of their fuel supply and great congested centers were the result. Today one may ride for miles over that part of the country served by electric power and find mills which are models of modern installation, around which have grown charming little settlements which have no analogy to the crowded slums of the earlier period. Many of these mills are run by hydro-electric power, others find their force through the transmission of long distance current, possible only through the modern methods of the inter-communication of generating stations.

The introduction of electric power into outlying communities brings great economic changes. No greater encouragement has ever been given to further the "back-to-the-land" movement than the introduction of a motivating power which would bring city comfort and mechanical aid to overworked farmers and their burdened wives. Power machinery has come to be as important in most sections of the agricultural districts as it is in manufacturing areas. Threshers, feed grinders, hay balers and other agricultural implements are operated under the labor saving means of cheap current and the farmer's wife shortens her day by half in using the many household devices which substitute electricity for personal effort.

Wherever electric power has been introduced into a community, there it has grown and prospered. New England manufacturing interests were built on the use of the swiftly flowing streams which generated current for their operation. The reason for the large growth in a certain section of the south may be found in the spectacular development of the Alabama Power Company. This Company started in 1913 with about 6,600 horsepower. Today its hydro-electric and steam plants generate over 360,000 horsepower and when its present plans are complete it will have over 600,000 horsepower.

Checking up on the growth of the community since 1913, it was discovered that not only have most of the industries located in that section since the power company began to operate but that the existence of cheap and reliable power has been instrumental in their rapid growth. The production of this low rate power has been made possible through hydro-electric development. In many cases in localities which had not as yet been reached by the

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Three Score and Ten—And After

A Study of Thrift and Its Results

By Robert Henderson
Second Vice-President and Actuary of the Equitable Life Assurance Society of the United States

There is an aged person depending upon you for support and it is very important to you that the matter should be attended to betimes, for that aged person is very closely related to you, no one closer. That aged person is, in fact, your future self — a statement based on the not improbable supposition that you will survive beyond the usual working period of life and reach the time when leisure will become one of the necessities of life.

This makes the conditions which promote the health and happiness of those who have passed the meridian of life a very important one to all of us. Regardless of our present age, we are vitally interested in these conditions because, if we have not yet arrived at that period of life, we hope to reach it some day or because the identical conditions which will be helpful in those future years are likely to be equally helpful also in our earlier years.

Being connected with the business of life insurance and specially charged with the duty of applying the results of experience to that business, it is natural that I should view this question to a certain extent from that angle. Health has a very intimate connection with life insurance, and health and happiness are to a large extent companion blessings. Without health the attainment of happiness is difficult. It is also true — and to a greater extent than most of us realize — that happiness or, shall we say, "contentment" is a very efficient promoter of health. The importance of the part played by the mind in connection with bodily welfare is more strongly recognized every day. This is referred to by Basil King in "The Conquest of Fear" when he says:

"It is becoming more and more recognized, I think, that physical collapse has generally behind it a mental cause, or a long series of mental causes too subtle for tabulation."

Robert Henderson
Second Vice President and Actuary, The Equitable Life Assurance Society

In the very distressing and prostrating ailment called neurasthenia, this relation is very directly in evidence. The author of the chapter on that disease in a standard treatise on the Practice of Medicine says, "Emotional stress is ..... probably the only important factor in the causation of this disease" and "under the heading of emotional stress must be included especially conditions of increased responsibility, difficulties in meeting the cost of living, business and financial worries or reverses, changes in habitual modes of life and occupation....."

In other diseases the connection is not so evident, but we are all familiar with the fact that a general "run down" condition renders us specially liable to many diseases; and a "run down condition" is often due to such mental causes as illustrated by "worry." I am not however, qualified to give a medical discussion of this subject nor is it my intention to do so. Let us rather study the mortality experience of life insurance companies in order to find out if that experience offers any valuable suggestions on the subject.

We can not, of course, classify our policy-holders strictly in accordance with the amount of worry or other mental depression which they may experience but as we issue policies on various plans it may be possible to estimate in a general way the probable relations of these plans to the question of financial worries and hence obtain some indications from the relative mortality experiences.

All insurance policies — whether life or other forms — which are taken to provide against some adverse contingency beyond the control of the insured, tend to reduce or remove a source of anxiety, but the various forms, particularly of *life* insurance, differ among themselves in this respect.

The "Ordinary Life" policy is today the most popular form of life insurance. It is possible that a larger amount of life insurance is written on that form than on all other forms combined. It provides for insurance in a simple form with only so much of the investment feature as is necessary to provide for the indefinite continuance of the insurance without any increase in premium rate on account of advancing age. Thus it provides the maximum of protection to the family or estate of the insured at the lowest cost consistent with permanent protection without increase in that cost. The guarantee of uniform cost naturally requires the accumulation of a reserve out of the early premiums to cover the amounts by which the future premiums will fall short of those which would be charged to new applicants at the attained age of the insured.

"Emotional stress is probably the one important factor in the causation of disease. Under this heading must be included especially conditions of increased responsibility, difficulties in meeting the cost of living, business and financial reverses or worries"
(Photo — Courtesy Cleveland Welfare Federation)

This reserve, in turn, provides a surrender value available in cash to the insured should circumstances arise where the insurance protection is no longer required — so that the policy can be surrendered. The "Ordinary Life" policy thus provides, in addition to the life insurance, a certain amount of investment or provision for old age, although this is merely incidental to the main purpose.

In the case of an "Endowment Policy," on the other hand, a higher rate of premium is deliberately paid by the insured with the object of so increasing the investment element or accumulation of reserve that the policy can be made to mature for the face amount at some specified date, while at the same time providing insurance should death occur in the meantime. This form of policy therefore relieves all the anxieties which the "Ordinary Life" policy relieves. In addition it provides more fully for the old age of the policy-holder — thus relieving still another source of anxiety.

It is therefore, interesting to compare the rates of mortality of those insured under "Endowment" policies with the corresponding rates under "Ordinary Life" policies. There are two special instances where investigations were made on these plans simultaneously on a fairly large scale. The first was when the British Life insurance offices investigated their experience for the thirty-year period from 1863 to 1893 on the "Ordinary Life" and "Endowment" Plans separately. In comparing the results of these experiences it will be well to omit the experience of the first five years of each policy, or, in other words, to consider only the experience after five years has elapsed from the issue of the policy. This is done in order to reduce to a minimum the effects of variation in the selection exercised by both the insuring company and by the applicant in granting the insurance.

These two selections worked in opposite directions — the companies accepting applications more freely on the "Endowment" plan than on the "Ordinary Life" plan. In fact, in the past it was much more common than it is today for a company to refuse to issue a Whole Life policy and to offer an Endowment policy. On the other hand those who voluntarily select "Endowment" policies on the whole are better risks than those who select Whole Life policies. They certainly think they have a good prospect of surviving to the end of the period or they would not pay an additional premium for a benefit only realizable in that event. But experience indicates that the effects of selection have largely disappeared in about five years, so that a group of lives of a given attained age who were insured six or seven years ago have substantially the same rate of mortality as a group of the same attained age who were insured fifteen years ago.

Reverting then to the experiences of the British companies: each experience was compared with the same standard and it was found that where — according to the standard — 3,389 deaths were expected among those insured on the "Endowment" plan, omitting the first five years, the actual deaths were 3,064 or approximately 90 per cent.

On the other hand taking for comparative purposes the experience of the sixth to twentieth years inclusive on the "*Ordinary Life*" plan, the expected number of deaths was 32,147 and the actual number 36,343 or 113% — showing in that case an apparent advantage of about 20% in favor of the "Endowment" plan. Part of this advantage may have resulted from the average age of those insured on the endowment plan having been less than in the other case.

In order to minimize this, let us take the experience of American Life Companies during the fifteen

years, 1900 to 1915, and compare the mortality on the two plans at attained ages 50 to 69 inclusive — again omitting the first five policy years. The expected deaths in this case are figured on the basis of a mortality table prepared from the general average experience of the same period. Here we have on the "Endowment" plan death claims amounting to $14,453,500 against expected claims of $15,525,600 or 93% while on the "Ordinary Life" plan the corresponding figures are $135,995,400 and $131,023,400 or 104%. This shows a difference of about 10% in favor of the "Endowment" plan.

THERE is another form of insurance contract which has a still more direct relation to the comfort and peace of mind of those in advancing years. This is the "Life Annuity" form — the ordinary form of which provides for the payment to the annuitant for life of a definite income annually, semi-annually, quarterly or monthly with the guarantee of the company that so long as life continues the income will be paid no matter how long that may be. In this simple form the contract ceases absolutely at the death of the annuitant but this may be modified in various ways. One way is to name two annuitants and provide that the income will continue so long as either is alive. Another is to provide that should the annuitant die before the aggregate of the payments of income equal the premium originally paid to the company the difference would be paid to some named beneficiary or to the estate of the annuitant either by continuing the regular payments until that had been accomplished or by lump sum.

Annuitants are proverbially long lived. This is illustrated by an old Scottish poem of which it may be well to quote a few stanzas:

THE ANNUITY
By GEORGE OUTRAM

I gaed to spend a week in Fife —
  Am unco week it proved to be —
For there I met a waesome wife
Lamentin' her viduity.
Her grief brak out sae firece and fell,
I thought her heart wad burst the shell:
And — I was sae left to myself' —
  I sell't her an annuity.

The bargain lookit fair enough —
  She just was turn'd saxty-three —
I couldna guess'd she'd prove sae teugh
  By human ingenuity.
But years have come, and years have gane,
And there she's yet as stieve's a stane —
The limmer's growin' young again,
  Since she got her annuity.

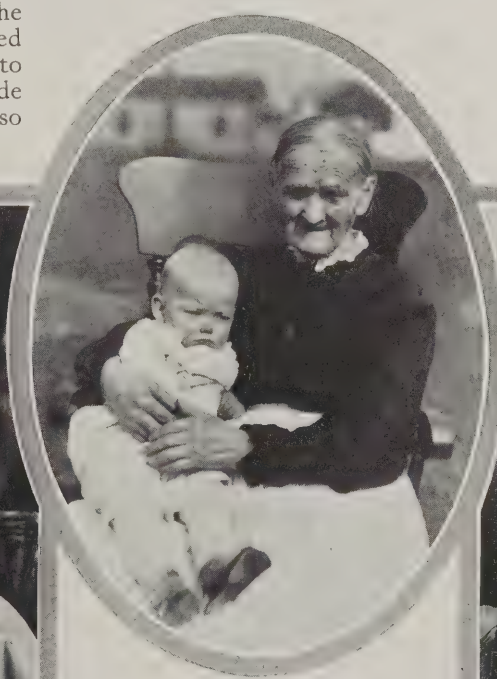
She's crined awa' to bane and skin;
  But that it seems is naught to me,
She's like to live — although she's in
  The last stage of tenuity.
She munches wi' her wizen'd gums,
An' stumps about on legs o' thrums,
But comes as sure as Christmas comes —
  To ca' for her annuity.

I read the tables drawn wi' care
  For an Insurance Company;
Her chance o' life was stated there
  Wi' perfect perspicuity.
But tables here, or tables there,
She's lived ten years beyond her share,
An's like to live a dozen mair,
  To ca' for her annuity.

The British government learned this lesson of annuitant longevity by bitter experience, when it undertook to raise money by the sale of annuities on lives, using rates based on mortality tables derived from general population statistics. The result was that, owing to a longevity far beyond that predicted by the tables used, the government paid in effect a much higher total than if it had borrowed in the regular way. It still continues to sell life annuities but at rates revised to bring them into accord with annuitant longevity.

An investigation was recently made of the mortality experience of American Life Companies on annuities sold in this country, and it is interesting to compare the result with that of the experience on insured lives already referred to and also with the United States Life

"Annuitants are proverbially long lived"

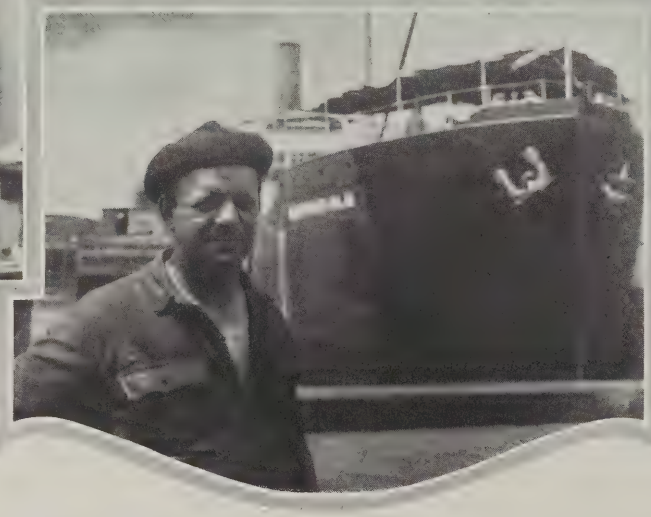


"It is becoming more and more recognized that physical collapse generally has behind it a mental cause or a long series of mental causes too subtle for tabulation" — (Photos, Courtesy, Cleveland Welfare Federation)

"The mortality rates for female annuitants average nearly 30% below the rates for the female population"

"*All insurance policies providing against adverse contingency beyond the control of the insured, tend to reduce or remove a source of anxiety*"

"*We may confidently expect to see not only an increase in the proportion of people reaching three-score and ten but also an increase in the comfort, health and longevity of those who have attained it*"



"*The possession of a fixed income certain to last the whole of life permits health and longevity*"

Tables of 1910 which are based on the population returns of 1910 and the deaths of the three years 1909-10-11. For the latter, I shall use the data relating to whites in the original registration states. The following table shows the rates of mortality per thousand at various specimen ages and for men and women separately.

It will be noted that the ultimate rates of mortality, or rates after the first five policy years, among insured lives at the older ages are substantially the same as among the general white population with a tendency to exceed them at extreme old ages particularly in the case of female lives. We shall therefore take the United States Life Table rates as a basis of comparison and note that the rates of mortality among male annuitants at ages sixty and over (omitting the first five years after purchase) average about fifteen per cent *below* that standard and that the corresponding rates for female annuitants average nearly *thirty per cent below* the rates for the female population. These figures tend very strongly to confirm the theory, which is also supported by common sense, that the possession of a fixed income certain to last the whole of life promotes health and longevity.

Rates of Mortality per 1000 at Specimen Ages

	MEN			WOMEN		
Age	U. S. Life	No. of Deaths Among Insured	No. of Deaths Among Annuitants	U. S. Life	No. of Deaths Among Insured	No. of Deaths Among Annuitants
60	31	27	26	26	23	20
70	62	61	53	57	57	40
80	136	136	112	126	132	85
90	255	280	230	248	307	176

In recent years, there has been a very marked increase in the public interest surrounding the making of a proper provision for old age, and special contracts have been devised to encourage savings with that object. For example, the company with which I am connected has on the market two forms of contract designed almost wholly for provision for old age. I refer to the "Income Bond" contract and to the "Retirement Annuity." The former provides for a definite income commencing at a specified age — sixty, sixty-five or seventy — in consideration of annual premiums up to that age with the stipulation that, in case death occurs prior to the time that the aggregate income drawn equals the total premiums paid, the difference will be paid by the company in a lump sum.

The "Retirement Annuity" is more elastic. It amounts in effect

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Business Conditions

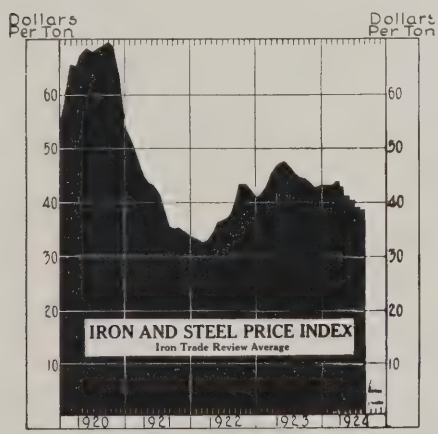
By C. L. Bradley
Vice President, The Union Trust Co.

September 10, 1924

As was excepted, the business pulse reached its low ebb for the current year in the months of June and July. August, however, registered moderate improvement, although it was vexed by cross currents and the total progress for the month was small though important, for it registered the first reaction to four stimuli which will continue to affect business favorably throughout the year — first, a continuance of easy credit conditions; second, a marked rise in grain prices; third, a still increasing need to build up stocks of goods in many lines where output has been reduced below the consumption level, and lastly, the acceptance of the Dawes Plan and the inauguration of its actual operation which indicates the apparent dawn of a better day in Europe.

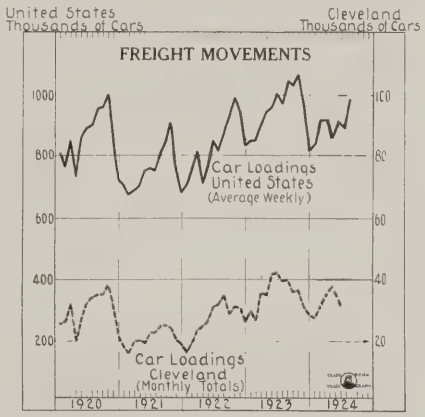
Steel and Iron

Mill operation in August increased better than 25% over the low of June and July and today the mills are running at better than 50% of capacity with a slight but steady gain in demand. During the past month (August) the orders of the United States Steel Corporation increased 10% and shipments 17%. The railroads are buying, and still more active purchases from this direction are on the horizon — as illustrated by contemplated order for 12,000 freight cars, which is the largest in several months.



Although there is every evidence of a turn in demand and in activities of the iron and steel industry, the composite market average compiled by Iron Trade Review continues to waver. Finished steel prices are weaker than pig iron prices which are more stable. Finished steel prices are frequently weaker during the early stages of a revival in the industry. The average for iron and steel prices is 49 per cent above the 1913 average against 80 per cent above the 1923 peak

August showed a 5% increase both in pig iron production and in number of furnaces in operation while the price has stiffened slightly. This is the first upturn since last March and might be accepted as an indication that this important industry has "turned the corner," although prices are still at almost a no-profit position.



Railroad traffic has been increasing recently due to larger movements of grain and heavy distribution of goods in preparation for fall trade. Car loadings in the United States late in August touched the highest peak of the year. They continue to run about 8 per cent below those for 1923, however

The Railroads

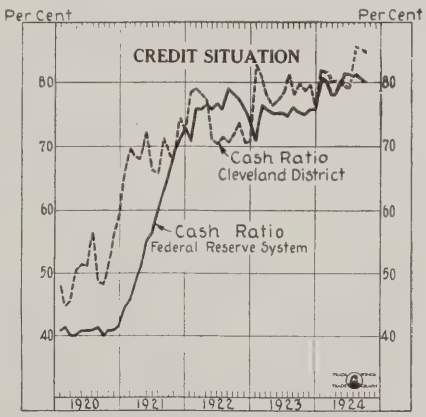
Railroad traffic shows a conspicuous increase as a result of large grain movements and early preparations for fall trade. The number of idle cars is rapidly falling and loadings have reached the highest level of the year. As compared with last year, grain, merchandise and L. C. L. shipments gained, whereas coal, iron ore, lumber and live stock show decreases. Railroad earnings are increasing and our national transportation system gives substantial evidence of being upon the threshold of a period of proper relationship between income and expense.

Automobiles

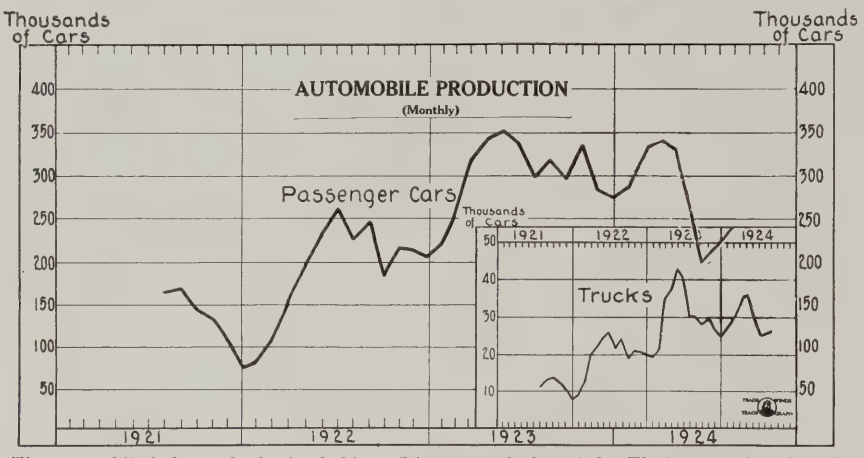
August was a disappointing month for the automobile manufacturers, inasmuch as sales did not come up to their rather roseate expectations. During the summer in sporadic cases passenger car prices stiffened slightly. At the present moment, dealers are fairly well stocked up and it is not anticipated that there will be a shortage of supply during the balance of the present year, although a good Fall season is confidently expected.

Tires

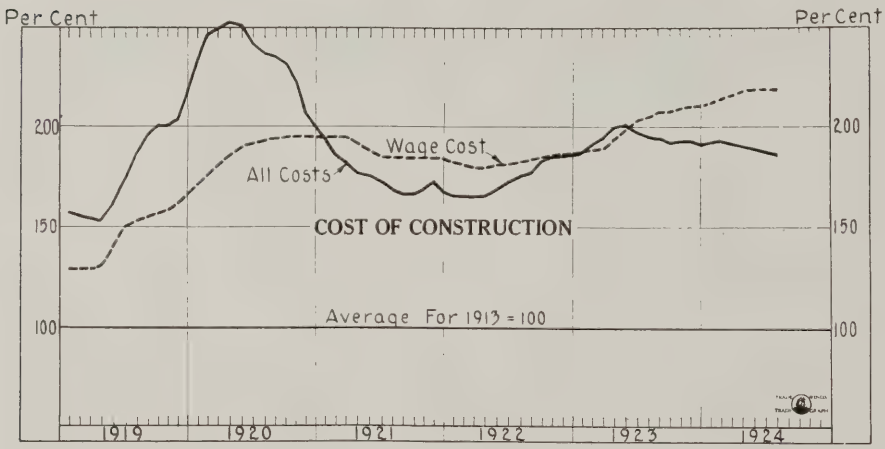
Concurrent with the season, tire demand developed in a large way and helped materially to reduce the large outstanding dealers' stocks. Akron plants are reported to have added approximately 10,000 employees, and output has been increased from 60,000 to 80,000 tires daily. The tire situation, however, is not a happy one owing to the high labor cost, the uncertainty of the crude rubber situation and the comparative low sales price of tires, coupled with their increasingly long life resulting in a substantial surplus of productive capacity over consumptive capacity. Whether or not the balloon tire will alter this condition remains to be seen. Some authorities anticipate that the ultimate tire will be something of a compromise between the cord and the full balloon type, combining the advantages of both.



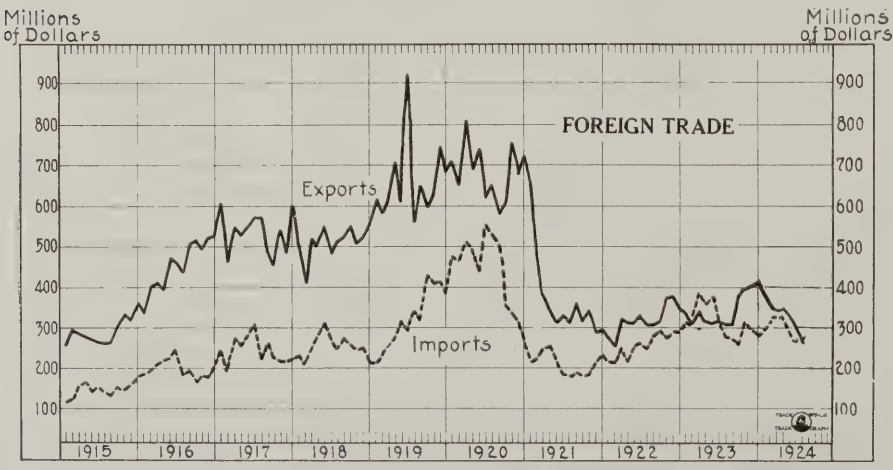
An increase of approximately $100,000,000 in the commercial loans and discounts of 747 member banks in leading cities occurred during August. Bank credit remains extraordinarily easy, however, due to the country's vast supply of gold. The cash ratio of the Cleveland Federal Reserve Bank rose to 87 per cent in July and was at 85 per cent early in September. The entire system's cash ratio continues around 80 per cent



The automobile industry is slowly shaking off its recent slack period. The lowest point of production was reached in June. July brought an upturn in the output of passenger cars, the gain being 9 per cent over June. In August there was a further increase. The total passenger car and truck production last month, according to preliminary estimates, was 268,477 cars against 262,000 cars in July and 246,000 cars in June. Surplus dealer stocks are less burdensome, sales have expanded somewhat, and prices are rising in some instances



Building costs have receded gradually during 1924. The index of all construction costs, compiled by the Federal Reserve Bank of New York, stood at 87 per cent above the 1913 average in July. This was the lowest level since January 1923. The wages of building labor have climbed to a new peak of 115 per cent above the prewar average and they are clinging at that pinnacle. Wage costs actually are less, however, because bonus payments and overtime wages are less. The cost of building materials is the lowest since June 1922



Money and Credit

Throughout the summer, the credit situation has continued easy as a result of the continued inflow of gold and the use of this gold by banks to pay off indebtedness to the Federal Reserve. These debts are practically extinguished and this country now holds approximately one-half of the world's total gold supply. As a result, credit is easy and this condition will and is serving as a desirable lubricant, awaiting the resumption of larger production.

Of course, with such credit situation, there is the temptation to abuse the facility by overexpansion and possible inflation, although to the writer this result seems hardly possible in light of the lessons of past years.

It is impossible to forecast accurately how long the present money situation will continue. It seems likely, however, that with the resumption of more normal business, coupled with an increased prosperity in Europe — which will thus furnish a desirable outlet for the surplus funds of this country — that the domestic credit situation will stiffen.

Agriculture

Agriculture shows a decided turn for the better although farm purchases have not as yet reacted materially to this influence. Wheat advanced better than 25% and corn nearly 60% in the light of reported failures in European and Canadian crops, and there is a good possibility that corn may go still higher.

According to some estimates, the total value of 1924 farm crops may exceed the 1923 figure by nearly $2,000,000,000, with a certain degree of compensation for the bad years being directed particularly at such states as Kansas, Oklahoma and North Dakota.

In Conclusion

The latter part of August and early September showed a marked improvement in sentiment, although the concrete evidences of improvement were by no means as substantial nor as positive. But the business men with whom I have talked, not only locally but in the East as well, are almost universal in the feeling that the pulse of business

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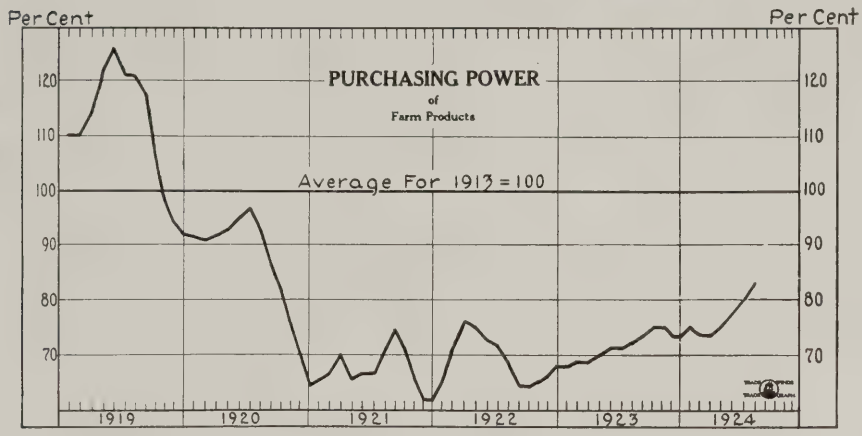
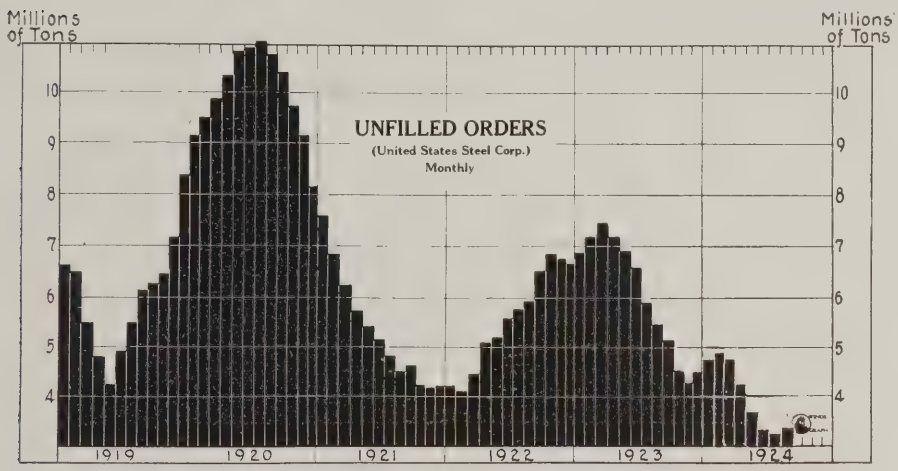
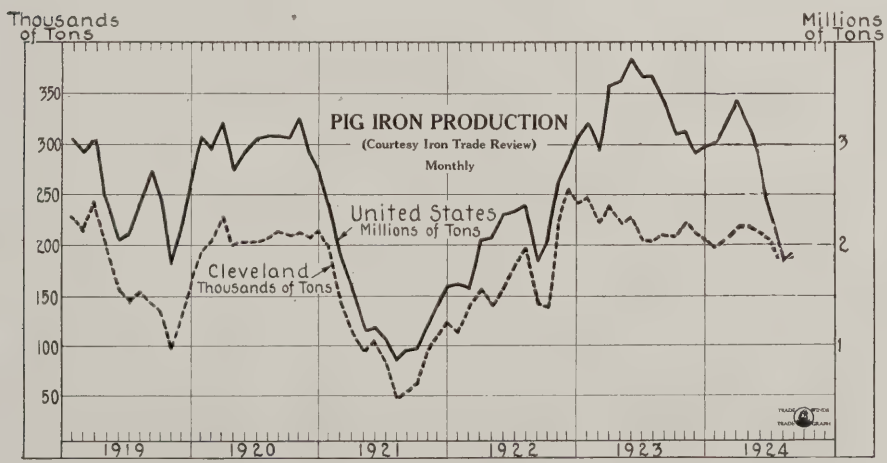
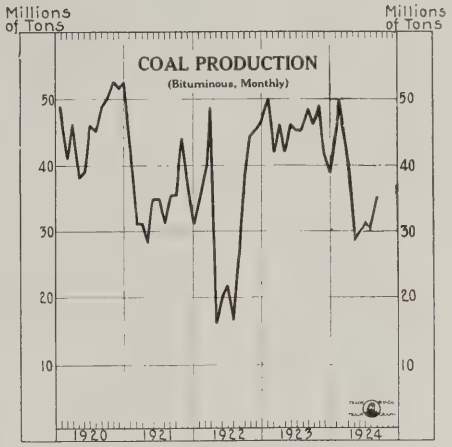


The revolutionary advance of grain prices this summer has greatly enhanced the buying ability of the agricultural sections. A measure of this increase is found in the department of agriculture's index of the purchasing power of farm products. This index, according to the last computation stood at 83 per cent of the 1913 average. That is the highest level it has touched since August 1920. The index has been advancing, with one or two interruptions, since the fall of 1922. It has gained twelve per cent this year

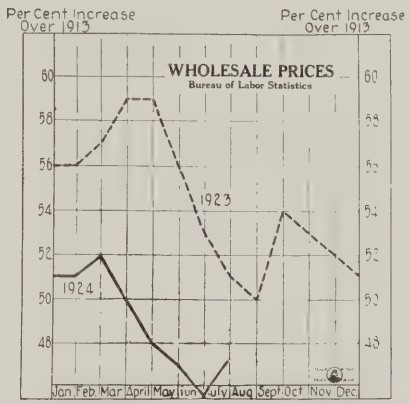


Unfilled orders of the United States Steel Corporation started to decline in March. They declined with great rapidity through June, showing an average monthly loss of 412,000 tons. In July there was a decline of only 75,433 tons, indicating a decided change in the fundamental position of the industry. This indication was strikingly sustained by the report showing a gain of 102,505 tons on August 31st. Total orders of 3,289,577 tons were the highest reported since May 31st. The substantial increase of unfilled bookings was all the more significant in view of the recent heavy shipments of steel





The output of bituminous coal is beginning to increase and is now about 17 per cent above the low point in April. It remains at depression levels, however. The production for the first 200 days of 1924 was 285,000,000 tons against 354,000,000 tons in the same period of 1923. Demand is slightly better and considerable further gain in output is expected to appear this Autumn



The wholesale prices of commodities have definitely touched bottom and are advancing. The index computed by the Bureau of Labor Statistics showed a distinct gain on Aug. 15, standing at 47 per cent over the 1913 level against 45 per cent above one month before. The most important factor in the rise of prices is the increase for farm products

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The first important statistical evidence that industry was actually on the upgrade came with the rise in pig iron production in August. The total output for the country for the month was 1,874,000 tons against 1,783,000 tons in July. The daily average rate of output during the month was 60,481 tons, a gain of five per cent over the July rate. This was the first increase since March. There was an increase of five in the number of active stacks

The BANKER *in* INDUSTRIAL RECONSTRUCTION

By Joseph R. Kraus
Vice President and Executive Manager
The Union Trust Company, Cleveland

The last few years have witnessed many reconstructions and reorganizations of industrial plants and commercial businesses, and many banks have had certain rearranging of their own finances to work out as a result of conditions in general business and industry. The larger banks throughout the country have been called upon to play a most important part in assisting to solve the problems of their customers, and to find some constructive way by which industry and business could work themselves back to normal operations.

The two relatively short periods of great volume, high prices, and large profits came to a sudden end before industrial managers could convert their inventories into cash, and, from all sides, the banks received requests for additional loans, and for further extensions of existing loans.

Naturally, this situation made it necessary for many businesses to find some means of replacing bank loans with additional capital, which could be furnished only by present stock and bond holders or by new ones to whom these companies could sell their securities. With declining profits, and increasing operation expenses, the securing of this capital was very difficult.

Bankers frequently found themselves a necessary arbiter between various creditors and security holders, and they naturally developed leadership and initiative in many of the most trying situations. Bankers worked with patience, resourcefulness, tact, and persistent energy toward finding a way out for creditors (in which the banks were included), stockholders and management.

Inducements offered for new capital seemed high, but such propositions were necessary to attract this required capital. Creditors frequently combatted each other for months — thus adding great difficulties for those who sought to find a common ground for progress.

Naturally the banker, having loaned his customer the money of his depositors, had either to be aggressive and insistent upon going forward with a plan which would protect this loan, or follow the only other alternative — that of allowing the customers' business to liquidate through receivership. There were only these two alternatives, but to the everlasting credit of broad-minded bankers, it may be said that they worked with the preservation of the company ever in mind — where that course was in any way possible.

The banker was obliged to temporarily get into management or to at once secure new management, and to cut operating expenses when — as in many cases — individuals suffered, in order that the business could go on. Receiverships and courts were too inflexible as a business operating organization. To keep concerns going, and to avoid receiverships, committee management gave invaluable service to the interests of stockholders and creditors alike.

Having been in intimate association with a number of reorganizations, I may describe briefly a few typical experiences, which clearly show the very constructive work done by the banks. Many other such cases occurred with which bankers generally are familiar, in fact in the last three or four years, we have all had reorganizations and re-financing to contend with. All have been conceived from the constructive standpoint, and particu-

larly from the standpoint of placing our loans on a basis where full payment might be realized. Most bankers know these cases best as "work-outs," and while in most instances they have been "work-outs" from a selfish standpoint, I believe that all of us have tried to see that things were worked out in such a way that not only the creditors but the stockholders of the various companies were given a chance to come back into their own. Many such have worked out upon a proper readjustment of their financial structure. Some are still in the process and others have come to the point where it is obvious that they will not work out.

If any banker needed education along these lines, he certainly has had it, and has had some further insight into the things which bring about the need for reorganization, the things which may be done to stop and to mend the troubles, and has gone far enough with most of them to see the results which can or cannot be achieved.

I am thinking of three or four actual experiences which our institution has had, and a brief outline of them will bring out the principles involved, and the reasons for success or failure.

I

The reorganization of a large rubber company is an outstanding example. The interests involved were considerable in figures and volume. The bank debt, including a special secured loan of November, 1920, was approximately $45,000,000. The trade debt, aside from commitments was over $11,000,000. Partially disputed taxes and contingent items amounted to over $6,000,000. Commitment obligations were over $50,000,000. The preferred stock was approximately $65,000,000 in par amount, and the common stock about $61,000,000. There were, therefore, substantial creditors of various classes scattered all over the world.

When the Company first came into difficulty, the situation was very ably held by a special secured loan from the New York bankers, in the shape of a revolving credit secured by stocks of merchandise and receivables, and under this credit the Company was able to keep going until the reorganization could be worked out.

The conditions which brought about the perilous position of the Company were in this case a large expansion in fixed capital items, commitments for raw materials on a falling market, and the rapid falling off in foreign and some domestic trade. These conditions brought the Company to a situation where

J. R. Kraus
Vice President and Executive Manager, The Union Trust Company, Cleveland

its credit on an open basis was very seriously impaired.

As I have said before, the special secured loan of the fall of 1920 held this situation during the working out of a plan of reorganization.

Committees were organized representing the bank debt, the merchandise debt, and the two classes of stockholders, and these Committees functioned in the preparation and consummation of the plan. The plan as finally made up and consummated was in outline as follows:

1 — An issue of first mortgage bonds to provide new money.

2 — An issue of debentures to fund the bank debt and provide additional money.

3 — An issue of prior preference stock to care for the trade and commitment creditors.

4 — The preferred stock was left unchanged.

5 — The common stock was converted into no-par stock.

In addition, all stocks were trusteed under separate voting trusts during the life of the debt created by the reorganization, and this control was cemented by an issue of management stock vesting the selection of a majority of the board during the life of the debt in three managers. In other words, the three managers selected were to determine the policy and management of the Company until the reorganization debt should be paid and the property returned to the stockholders.

So far as the banks were concerned, they took for their bank debt the debentures, which were second to the newly created mortgage bonds, and in addition to funding their debt into such debentures, they subscribed and paid for in cash an additional 100% of the amount of their debt. In other words, they doubled up their bank debt into the debentures, and were the only interested class who put up additional money to carry through the plan.

The results of the reorganization are now well known. Under able management and adequate financing, the Company has done no borrowing since the reorganization, has made substantial earnings, and has substantially reduced its funded indebtedness to the point where the old stockholders can begin to see that their equities are preserved and that they will realize upon them.

II

An entirely different method was used in the case of an automobile company, in which a number of banks were interested as creditors. Here again the difficulty was occasioned by large expansion in fixed assets at the expense of current; commitments and falling prices with a falling off in sales brought the concern to the point where its open credit could not be further extended, and refinancing became essential. Various plans were considered and proposed, but the one finally adopted was very simple, and, with the revival of business, gave every result which could have been asked for.

Temporary loans were made to carry the proposition to the point where the plan could be put through, and the company was taken care of by a funding of its debt into mortgage and collateral trust bonds of approximately a two-year maturity, carrying as security the branch properties and other non-essential assets of the company.

Through liquidation of the security, the debt was substantially liquidated prior to the maturity of the obligation, the company came into a good credit position, and was able to stand on its own feet and finance itself. It is in an independent position today.

III

Another situation arose in the farm implement business, where management differences, a falling off in sales, an overstocking in materials in an unbalanced way and at high prices, brought a concern to the point where it could no longer swim without help. In this situation the banks and the commercial paper people were about equal in amount of debt. The commercial paper representatives played along with us on an even basis, and we all came out in good shape.

The debt was funded into a serial unsecured note issue, running over a period of about four years. New money was provided on an issue of preferred stock by a small group of the stockholders. The management was revised through a voting trust on the stock in which representatives of the creditors acted as trustees and named an impartial arbiter to sit between the factions which owned the stock.

In this instance, with patience, a good arbiter, a relatively small amount of additional money, and a co-operation between the different classes of creditors, everyone has come out whole, and the equities of the stockholders have been preserved.

IV

As against these instances of successful workouts, we have, of course, others not so successful, and one of these in particular has been an excellent example of what a failure to co-operate means.

I have in mind a concern with several million dollars of assets, which came into difficulties immediately following the war activity. It had a large amount of scattered debt. It had a number of plants which had been individually successful, and which had been put together with the idea of producing volume at a reduced cost. Its stockholders were many and scattered, and its securities had been looked upon with favor until the time of the trouble.

The difficulties here again were a considerable extension of investment in fixed assets at high prices, absentee management, unwise purchase contracts and a falling off in sales.

The interested banks made a temporary loan of several million dollars without specific security, and, for a short period agreed to permit of funding the debt for a reasonable length of time and securing a new and capable management. A plan was prepared and submitted to stockholders, who, in the very large majority, approved it. A minority interest, however, whether from a desire to improve their selfish interests or from a conscientious objection to the plan, opposed it with considerable bitterness. The fight was carried into the courts, and the carrying out of the plan was enjoined. That was about four years ago. The company went into receivership immediately, could not make a profitable operation, and has been gradually liquidating. The liquidation is not yet closed, and the receivers are still acting. Creditors will do well to get 75 cents on the dollar. Beyond question, the stockholders will get nothing. Had the plan gone through as proposed, it is difficult to see how, in the revival of business, with a good management, and an adequate financial structure, the company could have failed to pay out its debts and preserve itself for those who made the original investment in it — the stockholders.

V

I recall a rather complicated and successful case of refinancing that occurred in 1915. That year, you remember, opened nervously — factories closed, money tight, gloom everywhere.

A certain individual in one of our Ohio cities found himself owing a large sum of money. His assets included four coal mines, three base ball clubs and leaseholds in two cities. His coal mines were closed on a fourteen months' strike. His ball clubs were losing money. His leaseholds were unimproved and the rents and expense piling up. He had exhausted his credit and was facing bankruptcy.

He came with his story to his largest creditor bank. In an incredibly short time a Creditors' Committee was formed, and a two-year extension was granted. During those two years the baseball clubs were sold, the leaseholds were financed, the buildings costing nearly two million dollars completed. Some coal properties were sold and others refinanced.

The result was most gratifying both to creditors and to the debtor. Every dollar of indebtedness had been paid, and unencumbered assets worth millions restored to the debtor.

* * *

The lessons which bankers have drawn from these things are:

First — To follow our credits closely.

Second — To know the management well in concerns where we are advancing credit.

Third — To see trouble early, and to act quickly and thoroughly on it, and

Fourth — and most important — To secure the co-operation of all concerned in the first stages, and hold them through until the results have been attained.

AFTER reading the article on page 7—which, by the way, is one of the most interesting it has ever been our pleasure to publish — we suggest that you send for our brochure showing how the beneficiaries of your insurance may still further be insured. A postal card is enclosed for your convenience and their protection

Making The Work Boss The Job

A sketch of the interesting production and personnel methods of a Cleveland manufacturer

By D. K. Snow

When Henry Richman, the father of the Richman Brothers, began to manufacture suits in 1853, in Portsmouth, Ohio, even his most sanguine fancies could not have pictured such a spectacle of quantity production and direct distribution as is offered today in the Richman Brothers Company factory, East 55th Street, Cleveland, "Dedicated by the Chamber of Commerce as the best factory erected in Cleveland in the year 1916."

The Richman Brothers Company literally sells "direct to consumer." It now operates fourteen retail stores in as many different cities, but at the present time, its mail order business takes a larger percentage of its product than any single one of its stores.

The company is able to determine in general, the volume of output which its store and mail order business may be expected to need for some time to come. Material is bought according to the condition of the general market. The output is allotted to stores and to the mail order business in advance and the shop is balanced between these two.

This accounts for the unusually level production line of the Richman Brothers Company factory.

A trip through the factory shows apparently endless rows upon rows of tables at which girls and men are working quietly and contentedly, showing steady speed but little excitement.

The raw material, that is, the cloth, is inspected for pulling strength and weight, tested, measured, and thoroughly examined for imperfections by a woolen expert. It is then sponged and shrunk, put upon racks for natural drying, and measured again.

Next the cloth is marked with patterns, laid out and cut. Material for 100 to 200 suits is ordinarily cut in one batch.

After cutting, "shading tickets" are placed on the goods, indicating the section of the goods from which each particular piece of cloth comes, and the pieces of cloth are notched and strung to indicate the position of pockets and buttons. Then they go to the pants shop and the coat shop. Materials go into these shops at one end in the form of many individual pieces and come out completed trousers or coats, at the other.

Each girl performs just one operation, such as the sewing up of one seam, and the cloth passes from operation to operation through the shop. Forty-nine people, for instance, handle each pair of pants before they are finished, and there are six hundred people making coats.

Then the proper coats, trousers and vests are assembled into one suit. This is done by means of matching the shading tickets, which assures that all parts of each suit come from the same piece of cloth.

In going through the plant, it seemed at first as though some of the foremen must be "out to lunch." Then Mr. Lewman, Vice President of the company, explained:

"We don't believe in having too many people to boss the work," he said. "In this factory, the work bosses the job.

"First of all, our form of organization is extremely simple. We call ourselves 'the Richman Family.' Now, of course, it is necessary to have some men in charge of others, but they have no title. We do not have superintendents or foremen.

"Next, we aim to pick our personnel very, very carefully. We try to get young, intelligent people and train them ourselves. It makes no difference to us whether they have had previous experience. We give them a factory which is clean and light and convenient, a factory in which the atmosphere and environment is such that it should make for quality of workmanship and contentment.

"Then, instead of having men standing around to boss the work, we route our work in such a way that the work bosses the job.

"There is a constant flow of work through every department in this factory. There is a steady pressure behind every operation, and a steady demand just beyond it. A worker cannot idle or fall down on her

A portion of the store room for sponged and shrunk materials

"There is a constant flow of work through every department — a pressure of work behind every operation and a steady demand just beyond it. 'The work bosses the job' — from the cutting of the garment through to the steam vacuum pressers"

particular job, because she is a vital link in the entire scheme of things in the factory. If she stops she dams up the flow of work. She feels that her particular job is important.

"Now of course, this plan works out in our factory particularly because we have more or less a standard rate of production, a uniform product, and a factory designed for exactly this system of production. Our work literally moves through the entire shop. It starts at one end and comes out at the other.

"Then too, we pay special attention to employment terms. In the first place, practically all the workers in the factory work on a piece-work basis, making an added incentive to speedy production. In the second place, no one inside the shop can make a rate on an operation, or hire or fire an employee. Every case is considered by the company as a personal case. The employees keep their own records on their own piece-work. They have no definite task set for them in terms of units or thousands because their task is simply to keep up their end of the flow of production.

"The machine workers are not classified in accordance with their speed, neither are they changed on operations. This counteracts the effect which sometimes results from piece-work, an effect of making the individual workers feel that they are regarded by their employer simply as machines capable of turning out so many thousand an hour, instead of being regarded as human beings.

"In the Richman Brothers Company factory everyone works eight hours and is paid for eight hours whether there is work for him or

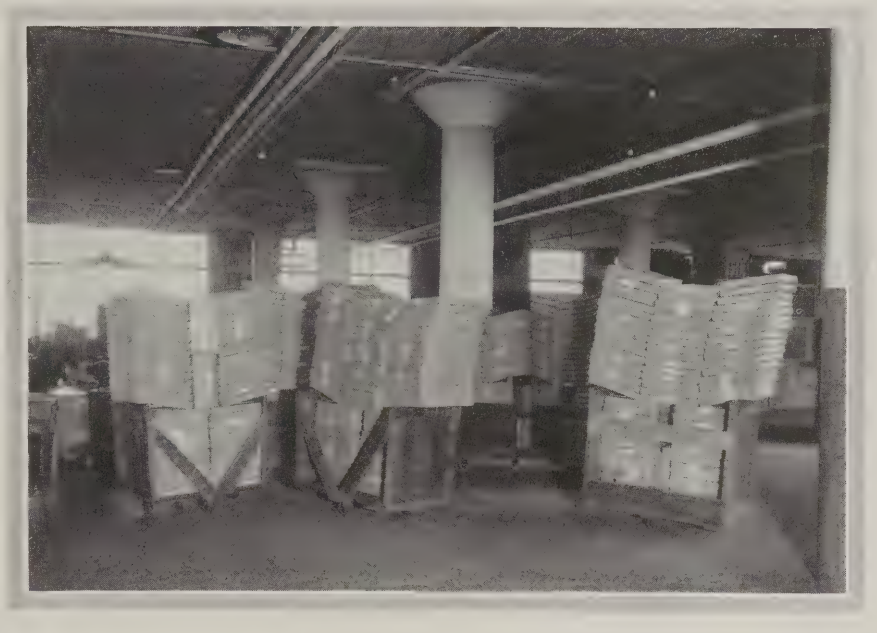
Part of the stock room of Richman Brothers Company

not; whether his rate of speed is high or not; but — and here is where the foremen come in, although they are not called foremen — it is up to our foremen to keep our employees busy. They keep them busy by maintaining a constant, even flow of work through the entire factory.

"It may be surprising to realize that in our factory we do not carry a balance of work ahead in shop operations. We never let one department get any farther ahead of the previous department than necessary. This principle of operation to a surprising extent decreases the amount of capital tied up in production. Furthermore, it keeps everyone on his toes, as there is always present the continuing necessity of work in order to supply the department ahead with material for its work.

"Now, of course, it sometimes happens that we find more people than necessary in one department, and some of them are idle. In such a case these people are not laid off, but are kept on a full eight-hour day basis until it is determined to which department they should be shifted in order to equalize the flow of work.

"Then there are certain additional items. Everyone in the Richman Brothers Company factory works fifty weeks but is paid for fifty-two.



Part of one day's outgoing mail at the Richman Brothers plant

We have our parties, our dancing, our employees' dining room which will hold 900 people, where we serve a meal for the average price of twenty-two cents, and we have given every employee in the factory an opportunity to obtain a share of the ownership of this company.

"One million, two hundred thousand dollars' worth of Richman Brothers Company stock is now owned and paid for by Richman employees.

"If employees are given a good place in which to work, an opportunity to become interested in the company for which they work, a proper social atmosphere, and above all else the pressure of a smoothly flowing, steady stream of work, there is little need of much 'bossing.'

"We don't try to boss the work — we let the work boss the job."

Three Score and Ten=

Continued from page 10

to the accumulation of a fund at interest which will be paid in a lump sum in case of death before retirement and which — after at least ten years from the commencement of the accumulation — may be applied, provided the attained age is anywhere from fifty to seventy, to the purchase, at a guaranteed reduced rate, of either a regular life annuity or one with a refund feature. Either the "Income Bond" or the "Retirement Annuity" may be issued with a provision for the cessation of premiums and payment of a regular income in case total and permanent disability should occur before retirement. They have both proved very popular and by their means many people have embarked on a definite program of provision for old age, some devoting as much as four thousand dollars per annum to that purpose.

We have also other forms such as the "Life Income Endowment" and the "Endowment Annuity" at age 65, in which provision for old age is a very important element of the contract. Many other companies have also special contracts for the same purpose, each with its own desirable features so that there is surely a contract in the market for every important need.

Many employers also are devoting considerable time and thought and money to the encouragement of pension or retirement funds for the benefit of their employes. In fact, our retirement annuity contract was made as elastic as it is with the idea of making it adaptable to the varying needs of pension plans.

With the growth of these ideas of thrift and systematic provision for old age, we may confidently expect to see not only an increase in the proportion of people reaching three score and ten but also an increase in the comfort, health and longevity of those who have attained it.

The Use of Business Statistics

By Mortimer B. Lane
Editor, Survey of Current Business
U. S. Department of Commerce

Judging by the large sales reports, the latest recruits to the list of successful business are radio, mah jong, and business statistics. Radio entered the list through the medium of a new invention, mah jong entered it as a fashionable fad, while business statistics are a combination of both and therefore to the ordinary layman often as incomprehensible as either. The application of mathematical formulas and mysterious-concealed sources of information to many of our business statistics has raised such a hocus-pocus, "now you see it and now you don't" attitude over the whole affair that the business man has become bewildered in the maze of figure-slinging and in despair chucks all his business reports in the waste basket.

The purpose of this article is to show that not all statistics are bad statistics, to paraphrase the old adage about the Indian, and that actually a great deal of information may be learned and is being learned about business trends through the figures of business transactions. These figures are not panaceas for business ills or medicines which will guarantee long life and prosperity to an unhealthy business, but are barometers through which a pretty fair predication of coming events may be made through knowledge of present basic conditions just as our household barometers enable us to detect the approach of a storm by knowledge of the air pressure. Some times the storm does not arrive, owing to the intervention of other factors that could not be recorded, and similarly a forecasted business storm may be prevented by the action of economic forces that cannot be recorded in our statistical data. The mistakes of the "weather man" are legend and yet he has only natural forces to deal with, while business forecasting is still in its infancy and may be upset by the whole gamut of human emotions and actions.

After all, business is good or bad as confidence in conditions is shown through purchases, and all the favorable statistics in the world could not inspire confidence and buying, if, for example, a huge war cloud loomed suddenly over the horizon. Ordinarily, however, the confidence or lack of confidence which determines business transactions is based upon some fundamental idea and this is reflected in business statistics.

The merchant who believes prices for his goods are about to rise begins to stock up his shelves. This belief may be only a "hunch" or a "tip" and thus merely a guess, or the merchant may have come to this conclusion by watching the statistics of supply and demand on this particular subject. His action may be the effect of other business statistics and it will also cause statistics of stocks of goods on hand to rise. If this stocking up of goods has been unduly large, it will be reflected in the statistics and should carry its own corrective, in that those who study these figures with discerning eyes will cease buying for stock. As more people study the statistical bases for business movements, the closer will the collective opinion on business conditions, as shown through purchases, production schedules, advertising programs, etc., draw toward actual facts, and thus the violent fluctuations in business, caused largely by over-estimating the upward price movement, will be minimized to the great benefit of commerce and industry.

Let me give an example of the results of "guess" methods of doing business as contrasted with the study of the facts. We are all familiar with the disastrous collapse from the 1920 boom. Those who merely guessed as to price levels were drawn along in the momentum of the constantly increasing prices and stocked up as a matter of course. The depression caught them with goods bought at high prices — and unsalable at almost any price, because the demand had ceased.

On the other hand, there are many instances of business men who realized from examination of the statistical position early in 1920, that demand could not continue at the peak prices prevailing. They cut down their stocks and came through unscathed. The report of the Committee on Business Cycles and Unemployment issued about a year ago gives many specific instances of this foresight, by individual firms, through reading the barometric signs of industry. An astute judge of statistical facts is credited with anticipating the fall in sugar prices in 1920 by his knowledge of the facts of the sugar supply, and selling his sugar at the high ruling prices instead of stocking up with more. As a result his firm was not hit by the tremendous fall in sugar values which demoralized that industry for some time.

Since 1920, the subject of business statistics has been studied intensively and facts are now available on many more business movements than at any time, and, more important, they are gathered together and summarized in a form that the ordinary business man understands. Banks, newspapers and business services are doing this to a large extent, but I refer particularly to the source-book and collection agency for most of this material, the Survey of Current Business, a publication inaugurated three years ago in the Department of Commerce at Secretary Hoover's instigation.

Secretary Hoover believed that a knowledge of the current facts of commerce and industry in their proper relationship, with comparisons for previous periods, would go a long way toward eliminating the guess work in business and toward letting the business man know exactly where he stood. At first only the better known statistics were collected in this volume but it has been expanded steadily as more statistical data have become available and as the demand for this material has grown from business men, bankers, economists and publicists. In spite of the small amount of publicity work which can be done by a government organization, over 8,000 subscribers are now paying their dollar and a half per year to secure this service, which has been described by an official of one of the largest manufacturing

corporations in Ohio as "the most important step in our industrial life since the inauguration of the Federal Reserve System," while the secretary of a trade association says that "Uncle Sam gives the biggest dollar's worth ever printed in the Survey of Current Business."

What does this publication contain that makes it of such use to business men and how can it serve you in the same way? It merely collects in one place the business statistics which had hitherto floated around each in its own little pool, it places all on a common base as far as possible, and it presents them as actual facts of business which the men in the street can recognize, instead of as a mathematical jumble which only a college professor could disentangle. And here follows an instance, related to me by the purchasing agent himself, of how one company saved thousands of dollars by a little study of these business statistics.

At the beginning of this year, this company was approached by salesmen of cement manufacturers to contract for its yearly supply of cement, which it retailed to builders in large quantities. These salesmen quoted high prices, as they alleged that the supply of cement on hand was 1,500,000 barrels less than a year previous and urged that the supply be contracted for as soon as possible before a shortage developed with spring building operations. The purchasing agent studied the business statistics as presented in the Survey of Current Business and found that, instead of a decline, the stocks of cement at the mills were almost 1,500,000 barrels in excess of the previous year, that production was running higher than a year ago and that cement prices had begun to decline. Moreover, a glance at the railroad statistics showed that at the end of December, there was a surplus of over 300,000 idle cars, as against a car shortage of about 68,000 a year before; thus he knew that he could still delay his order or order only small quantities and yet be sure of prompt delivery by the railroads if he should suddenly require a large amount later on. With these facts in his possession, the purchasing agent was able to save about 30 cents a barrel on a large order of cement at this time, and he states that by these methods his company has saved thousands of dollars per year.

Of course, in this instance the statistics were in the purchasing agent's favor so that he was able to use them to the fullest extent. However, had the statistics been unfavorable, he would have purchased his requirement at once — at a higher price, of course, but probably lower than if he had waited, which he might have been inclined to do, if he did not know the facts, in the hope of securing his supplies cheaper at the later date. The main point is that by knowing the facts, plans can be made accurately and with the expectation of their being followed out by subsequent conditions, whereas if the guesser merely plays with chance, he might happen to hit the winning combination on the wheel through mere luck but more often he will have to take the gambler's steady losses.

The individual manufacturer or merchant can use the statistics of his industry not only in the manner described, but also to compare with his own sales, stocks or production. A great many business men find it worth while to plot their sales or other items on a chart containing the same item for the industry as a whole, so that the relative gain or loss of the particular firm as compared with the entire industry may be ascertained month by month. Such a comparison may reveal that, though an individual company's sales or production had increased, it had not kept pace with the increase for the industry as a whole, while, on the other hand, if a greater relative decline is seen for the industry than for the individual firm, the cause is evidently in trade conditions and not in a falling-down in the company's efficiency.

But the individual company's record and the record of the particular industry, valuable as they are for a survey of business trends, must be read in the light of the records of general business conditions and particularly of the industries and trades that consume the particular product. The cement industry, for instance, depends largely on building construction and on public works such as roads, bridges, etc., for its utilization, and anything that affects these industries may cause cement manufacturers and dealers to change their policies.

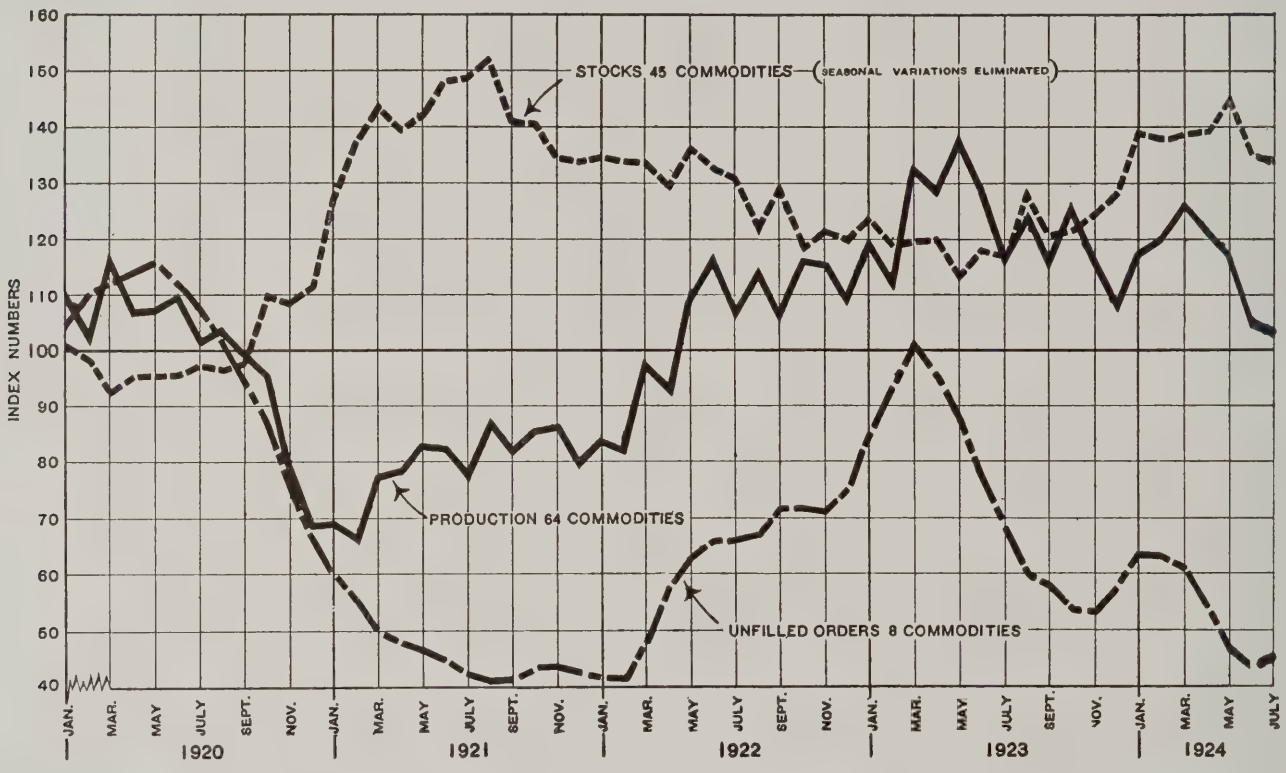
The general business situation, however, is usually the greatest influence upon the prosperity of individual industries. In the spring of 1920, for instance, almost every industry was running at an expanded rate while in 1921, depression was general throughout industry. It is, therefore, that most intangible of things — the general business situation — that the average executive likes to watch very closely. What are the elements therein that bear watching?

The action of the stock markets has been relied on quite consistently by students of business conditions to foretell the course of general business. The stock market acts as a barometer by virtue of its reflection of the farsighted judgment of those who buy and sell there — men whose business it is to look ahead and who make money to the extent that they guess right by their opinions. Moreover, the same influences that start securities upward — i. e., optimism as to greater profits, which usually means higher prices — are those which lead buyers to make more contracts for goods, thus creating good business. The reverse is also true. Experience has shown that the stock exchange has predicted the turn in business quite accurately in the past, usually by about six months, but the lessened productive activity after the spring of 1923 followed only two months after the stock averages turned. Many authorities now credit the money rate rather than business conditions for the stock market changes, but both causes are closely intertwined.

Prices of commodities are also closely watched as indicators of business, especially the combined index numbers such as those on wholesale prices compiled by the Department of Labor, which show in one figure the relative change of prices as a whole from month to month. The course of the price index determines to a large extent the demand for goods, a decline from peak prices resulting in a diminishing demand until it appears to consumers that prices can go no lower, while the first advance in

SURVEY OF CURRENT BUSINESS

Prepared in the Bureau of the Census



Relative production, stocks, and unfilled orders in basic industries (1920 monthly average=100)

prices usually stimulates demand in order to obtain goods before prices mount higher. Price index numbers also give indicators of the purchasing power of various groups, such as farmers, through the relation between farm prices and general prices.

The banking situation and particularly the money rate are looked to for signs of business revival or depression. A low rate for money, such as exists at present, is considered as encouraging business revival. Undoubtedly, it has some influence, but the low rate is generally considered the result of slack business and it is the signal for a rise more on account of the eventual revival of business than for its part in the revival. A business man can only use the low rate if he is borrowing money, and, as a rule, he only borrows money when he can make a profit in business from its use. A low rate, however, signifies an abundance of money which is ready, as soon as signs of improving conditions are manifest, to support business expansion.

The real foundation of business prosperity is found in productive activities, and index numbers showing the productive activity of the country are now compiled and are available in the "Survey of Current Business." Production, unless in excess of demand, indicates prosperity for the industries as well as for the wage earners, and the index of employment follows closely the production indicator.

As the relationships between production, stocks and unfilled orders have been developed in individual industries in order to find out the condition of the industry, it is now possible to visualize the same kind of relationships for industry as a whole, through index numbers compiled by the Department of Commerce for this purpose and published in chart form in the "Survey of Current Business" as shown herewith. These index numbers are as yet in their formative stage and the unfilled-order index is especially incomplete as it covers mainly the steel and building-material industries, but they have been used extensively by business men as foretellers of general business conditions and have been found to be quite useful in in this way.

Examination of the chart will show at a glance the tremendous divergence between stocks, production and unfilled orders in the depression of 1921, after a close proximity between them in 1920. As stocks were gradually reduced, production began to increase, and then in 1922 unfilled orders followed in the rush to contract for goods before further price increases. Finally a peak of orders was reached in March, 1923, when the increase in prices and the fear of another inflation boom caused a postponement of new demands,

while peak production occurred in May, at the same time as stocks reached their lowest point. . Since that time there has been a gradual increase in stocks on hand and declines in unfilled orders and production, except during the first three months of 1924 when a temporary increase in production took place without increasing stocks, as a result of the increase in unfilled orders from December to February.

The complete figures for July, which have just become available as this is written, show a turn upwards in the unfilled-order index, which had almost reached the low point of the 1921 depression. Commodity stocks, with allowances for seasonal conditions, had reached in May almost the peak point of 1921, but during June and July declines took place. The trend of manufacturing production, however, remains unchanged in a downward direction, but there was little change from June to July.

Without attempting to forecast any future trends from these curves, some interesting facts may be deduced therefrom in regard to the present situation. The first characteristic is hand-to-mouth buying, as shown by the low unfilled-order index; evidently business does not care to undertake new contracts, either on account of the belief that prices will decline still further or that stocks must first be worked off. The recent rise in prices and the decline in commodity stocks have influenced the upward trend of orders. Secondly, stocks on hand are apparently larger than is the general belief, at least for the commodities for which actual figures are available. That the same situation exists in other lines, however, is shown by the recent admission of prominent automobile manufacturers that the unsold stocks of cars on hand must be worked off before production can be increased to the levels of the early spring and the more recent utterances that these stocks are being brought down to normal. It is evident from the figures that the large-scale production of commodities from early 1923 until April, 1924, more than sufficed to cover the immediate demand for goods and that stocks which had reached a low point in May, 1923, have greatly increased until recent months. This excess of stocks hanging over the market has been a factor in lowering prices and its gradual elimination would tend to start production and prices on an upward course. This excess of stocks hanging over the market has been a factor in lowering prices, but the June figures plotted on the chart show a distinct decline in stocks, which has been helped by curtailed production.

In an article like this, it has not been possible to do more than set forth the principal statistical barometers and indicate the methods to be pursued in the use of business statistics. Every business man can, I believe, from these principles get together the comparisons best fitted for his own business. The "Survey of Current Business" will give him the basic facts, both for his own industry and for business in general; it costs only $1.50 per year and may be obtained from the Superintendent of Documents in Washington. The monthly bulletin of the local Federal Reserve bank may be used to supplement the national facts as far as the particular features of business conditions for the district are concerned. Thus equipped with facts, the business executive is ready to tackle his problems on a surer foundation; he is in a position to bring a new viewpoint to bear upon his decisions as to sales, purchasing and production policies; and he becomes one of the many who, in applying these principles of fact, are helping to eliminate the inflations and depressions based on rumor and hearsay and to put in their place a business world more stabilized and more profitable to producer, manufacturer, merchant and consumer.

What Are We Doing With Our White Coal?

Continued from page 6

company's power, communities undertook to supply themselves with power generated by hydro-electric plants. In practically all cases, these plants shortly found themselves entirely unable to cope with the demand for power and the communities grew so rapidly that the Alabama Company hooked up the small plants with their own system and were able to furnish the current in quantity.

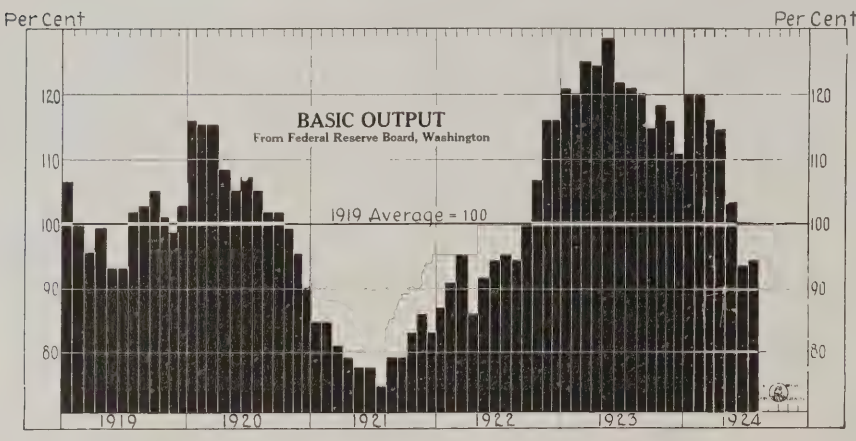
Cheap and dependable power thrown in a network all over the country would tend to have a magical effect in equalizing the population and in developing remote centers. The time is coming when we will link up everything east of the Mississippi River and west of the Rockies into two great power systems. Interlocking power, cheaply generated through the economical use of all of our resources and distributed over an ever-increasing radius of usefulness is one of America's greatest potentialities. The sooner it comes, the quicker comes prosperity to the nation.

"Express shipments in nearly every section of the country have about reached those of a year ago and we expect that traffic and earnings from September on will equal or exceed those of last fall and winter, when our business was very heavy" said Robert E. M. Cowie, president of the American Railway Express Co. on his return from a five-week tour of the company's principal operating centers.

"A wonderful transformation has taken place in the west in which the transportation industries cannot miss sharing," Mr. Cowie said. "The express industry does not participate directly in greater and better crops, but indirectly it has already begun to feel the effect through the farmer's increased buying of innumerable articles. Every traffic official I interviewed throughout the middle west and west, agreed that behind the improvement was the success of crops which were good in all states, and in some, like Kansas, phenomenal.

Business Conditions

Continued from page 12



Between February and June, the production of basic industries, as computed by the Federal Reserve Board, declined precipitately. The drop was from an index of 120 to 93. This curtailment was a healthy corrective of the threatened over-production last Spring. The most recent computation of the index reveals that outputs have stopped decreasing. In July the index stood at 94. That provides important evidence that the industrial reaction has run its course and that the next development will be toward improvement

will continue to increase at a slow but steady rate and that when the slightly depressing effect of the election uncertainty is passed, we may look forward to good business.

Apparently no excessive flood of business is expected but rather a slowly increasing tide, with each industry and each firm sounding the depth and strength of the current as it progresses.

The wholesale commodity price curve took a slight upward turn in August, although purchasers are still marking time in an endeavor to interpret the future, and any substantial price movements must await their decision.

While apparently the aggregate condition will make for slowly increasing prices, to the writer it seems that for a time at least, prices will tend to harden rather than increase. I do not believe that conservative business will buy heavily today, even at apparently favorable prices, but will purchase cautiously, awaiting an assured foundation of fact rather than basing anticipations upon probabilities.

While present retail stocks throughout the country are almost universally at such low ebb that almost the slightest buying pressure from the public will be immediately reflected in the plant of the manufacturer, such ripples of demand should not be interpreted as forerunners of any deluge. Again a conservative attitude would be desirable, although by no means should this conservatism be tinged with pessimism. Rather is it the product of hard won experience.

Certain it is that the summer has seen many fundamental economic difficulties improved, repaired and rectified. To date it has been a year of sturdy accomplishment and I anticipate that the balance of the year will build upon this firm foundation slowly but solidly. It will be a time when close attention to business will be necessary and when such attention will pay immediate and future profits in increasing proportions.

Study the Following Presidential Voting Table and the Record in Your Own State
Note the army of ballot slackers

PRESIDENTIAL VOTING RECORD — 1912-1916-1920

State	1912 Total Vote Male	1916 Total Vote Male	1920 Total Male and Female	1920 Total All Eligibles	Ballot Slackers 1920
Ala.	117879	125177	241070	1135529	894459
Ariz.	23457	58021	66803	140318	74015
Ark.	123131	168310	183636	861575	677939
Cal.	650161	999542	943463	1928247	984784
Col.	261342	293966	292053	519914	227861
Conn.	187070	313268	364027	630594	266567
Del.	48070	51810	94836	126233	31397
Fla.	50037	80303	145681	506660	360979
Ga.	121273	138037	151347	1414772	1263425
Idaho	104218	134615	135607	220180	84573
Ill.	1126397	2190129	2070468	3462879	1372411
Ind.	632095	713291	1262398	1702652	440254
Iowa	483916	516493	894034	1367212	473118
Kan.	365497	629813	570243	983547	413304
Ky.	449509	519614	918711	1278418	359707
La.	79377	86633	126057	896878	770821
Me.	128694	136407	197531	421034	223503
Md.	229415	261283	427264	817754	390490
Mass.	484200	530720	990011	1855250	865239
Mich.	540710	648507	1045280	1881597	836317
Minn.	324121	386606	730010	1237203	507193
Miss.	64528	86156	82492	872094	789602
Mo.	691404	785860	1330636	1969036	638450
Mont.	79794	177377	179006	289831	110825
Neb.	245825	286177	382653	686347	303694

Study the Following Presidential Voting Table and the Record in Your Own State
Note the army of ballot slackers

PRESIDENTIAL VOTING RECORD — 1912-1916-1920

State	1912 Total Vote Male	1916 Total Vote Male	1920 Total Male and Female	1920 Total All Eligibles	Ballot Slackers 1920
Nev.	20115	33316	27194	43419	16225
N. H.	87425	89123	159092	235466	76374
N. J.	420125	494646	901000	1525190	621190
N. Mex.	51245	66967	105399	168603	63209
N. Y.	1564313	1693526	2843672	5105545	2261873
N. C.	243430	289912	538758	1207343	668585
N. D.	85337	103677	205776	292830	87054
Ohio	1022953	1165036	2019500	3228294	1208794
Okla.	251616	292182	484951	1004516	519565
Ore.	132683	261340	237007	450567	213560
Pa.	1197265	1296680	1849692	4326734	2477042
Rh. Is.	77042	87636	167386	288560	124174
S. C.	50350	63531	66440	776969	761529
S. D.	92415	128952	182237	321883	139646
Tenn.	246996	272194	428626	1208219	779593
Tex.	299660	372461	411157	2233854	1822697
Utah	111876	142771	145828	207129	61301
Vt.	61746	64465	89905	198613	108708
Va.	136217	154023	230399	1192550	961551
Wash.	311117	380300	397384	746958	349574
W. Va.	264026	289842	507942	710384	200942
Wis.	390364	449377	705686	1341981	636295
Wyo.	41862	51840	56253	103479	47226
Selected Vote	238002	55297	37012	37012	.....
Totals	**15011180**	**18622759**	**26646273**	**54165907**	**27519634**

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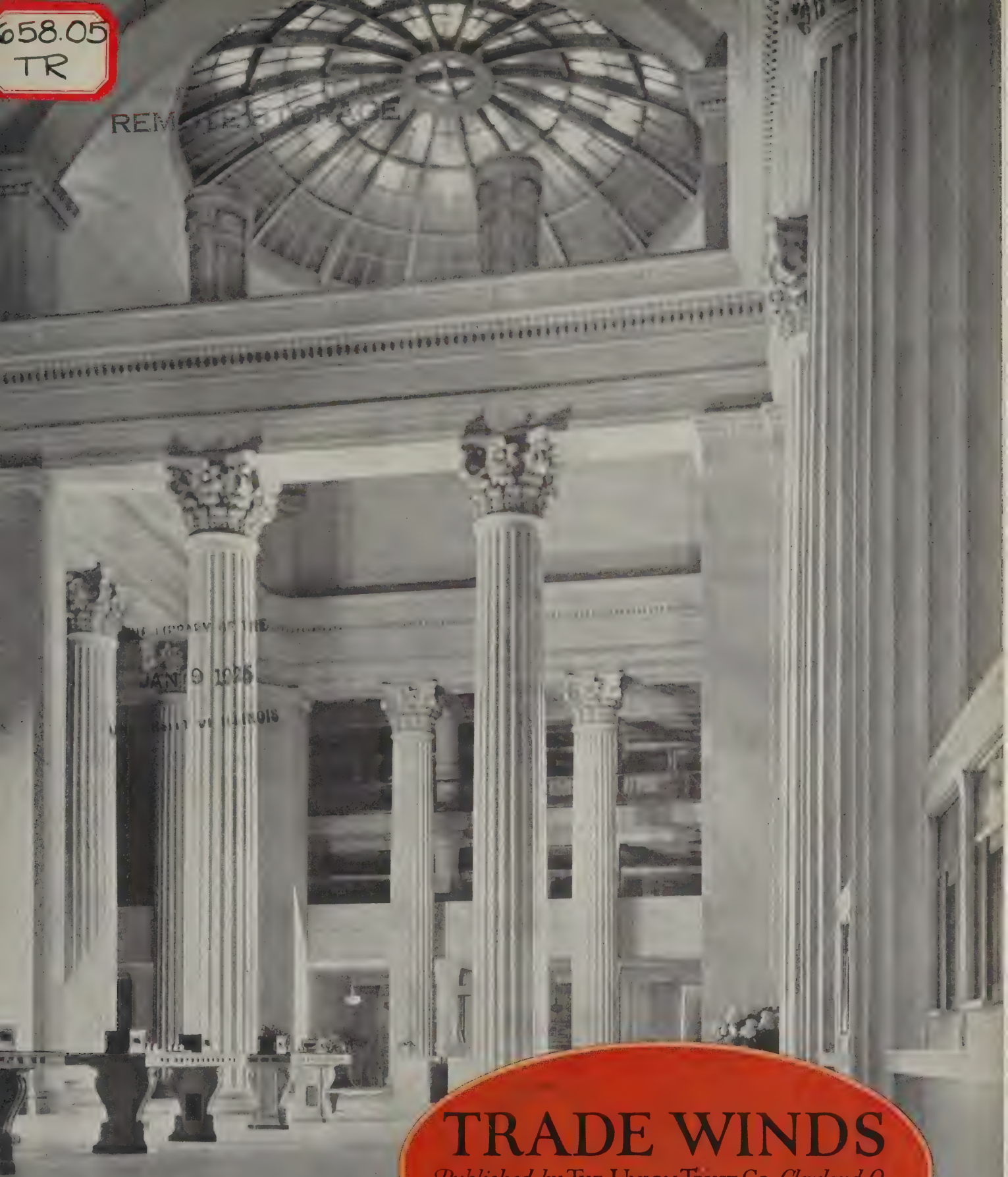

TRADE WINDS

Published by THE UNION TRUST CO. *Cleveland, O.*

October 1924

Is Welfare Work Practical?
By A. H. B. JEFFORDS
Vice President, Sherman Service, Inc.

The Historical as a Business Guide
By GEO. H. COULTON
Senior Vice President, The Union Trust Co.

Our Independence of Europe
By PROF. DAVID FRIDAY

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Why I Am a Bull on Business
By EDWARD S. JORDAN

English Business Conditions
By BARCLAYS BANK LIMITED

Domestic Business Conditions
By CHAS. BRADLEY
Vice President, The Union Trust Co.

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Is Industrial Welfare Work Practical?

A cleancut survey of an ever-present question by a man thoroughly capable of discussing it

Mr. A. H. B. Jeffords
Vice President, Sherman Service, Inc.

Industry is emerging from a form of delusion which has caused a waste of millions of dollars and a setback in relations between management and workers from which it will take perhaps five years more to recover.

The chronic ailment in question is the wave of so-called welfare work which became so prevalent during and immediately after the Great War.

Labor was at a premium. Demand was ever increasing in proportion to the decreasing supply. Wages were constantly increased to attract man power and to stimulate productive effort — the theory being that wages alone controlled productive effort. The result was the opposite — a common effect being that the more an employer paid, the less the employe delivered. It was also believed that high wages would stabilize the working organization, decreasing labor turnover. The result was again the opposite, and labor turnover mounted to unheard of figures — the fields on the other side of the fence looked a little greener to the employe.

Other inducements had to be provided which, by reason of their novelty and generosity, would attract and hold man power and stimulate productive energy. And Management, obsessed with the theory of giving, provided extreme measures of welfare work. Theories were put into practice founded on the viewpoint of what would appeal to the ordinary college student, or otherwise features were established which were so paternalistic as to be outwardly resented. The novelties along these lines became extravagant.

The employes were not consulted as to their views or desires, and almost all the welfare plans were installed and carried on by Management. The emergency provided little opportunity for deliberate study. The industrial history of employe relations was little known and less read, so that Management was unprepared to deal with the problem arising at that time. Consequently errors, which involved the fundamental principles of employer-employe-relations-in-industry, were universally committed.

The welfare activities, in many instances became extravagant and extreme, particularly those of an "uplift" character. Employes' wives became opposed to Management's representatives coming into their homes and telling them how they should feed their children, how their garments were to be sewed, and how they were to practice domestic science and social hygiene. The men were continuously urged — in a patronizing manner by Manage-

ment's representatives — to engage in a never ending procession of outings, picnics, religious activities, moving pictures pertaining largely to Management's business; athletic teams, supplied by the company with equipment and good jobs for exceptional players; and finally misguided and applied personnel activities of a most patronizing and philanthropic nature.

All these activities in their early stages — while they were new and not fully comprehended by employes — enjoyed some degree of success. But as time passed, the movement became more objectionable to the employes, they came to convictions negative to Management's interests which are known to be strongly intrenched in their minds to this day.

Employes did not like to be told how they should conduct their homes, their pleasures, or their normal activities out of working hours; that was a sacrifice of independence, and the result was harmful, no matter how good an employer's intentions were. The great error was in confusing charity with business. They did not fancy philanthropy. The "uplifters," cheer leaders, and personnel directors who affected good will toward "the boys" by main force were bitterly resented — in common with most people — and caused a growing inquiry in the minds of workers as to the purposes and the reasons for the expenditure of such large funds.

Professional leaders of radical labor organizations grasped the opportunity of capitalizing on Management's error, and at their instance "welfare work" earned the cognomen of "Hellfare Work."

Labor became convinced that Management was making gigantic profits and wasting them through frills which tickled the vanity or salved the consciences of Management and were exercised with a view of proving what a good fellow he was. They were convinced that they were being denied their just share of these huge profits which they had rightfully earned, and that the money so expended should go into their pay envelope. In many instances the higher executives of the corporation lived far from the plant where the workers were engaged. They heard of his palatial home or sporting activities and concluded that his welfare activities were pure hypocrisy. Consequently they withdrew from all welfare activities and went their own normal way, so that today throughout this country we find the husks and skeletons of the welfare movement in the shape of huge club houses, etc.

One other phase of welfare activity is deserving of mention, namely the vehicles of employe representation which were installed by Management before, during and after the war period. Without describing the past history of such plans let us briefly observe the tendencies stimulated by wartime welfare work.

Mr. A. H. B. Jeffords
Vice President, Sherman Service, Inc.

Many companies gathered their employes together and described to them the advantages which would accrue to them by entering into relations with Management whereby policies pertaining to wages, working conditions and mutual welfare would be discussed. Some companies even went so far as to give their employes representation on their boards of directors, while others sacrificed their privileges and property rights to their employes. Many vehicles of representation were built along the intricate lines of industrial democracies, having a supreme court, senate, house of representatives, etc. In installing such plans, Management would endeavor to explain the workings to their employes, in many instances consisting of a high percentage of mixed foreign born and speaking, through periodical group addresses. The procedures of such plans naturally became deeply involved.

In practically every instance these plans were thrust upon the employes without their full comprehension and consent. The workers recognized them as instruments to carry out Management's will and named them "company unions." They lacked faith and confidence in these representation plans because they were not the realization of their desires.

The development of employe representation plans received a setback — not that the fundamental principle of employe representation is in itself faulty — but by reason of their being fostered and promoted by Management.

It is being generally recognized by employes and employers that the most equitable plan provides for equal voice and representation concerning policy covering wages and working conditions. The great difficulty in the installation of such an ideal plan is Management's inability through supervision to educate their employes to such a clear understanding and consequent desire as will bring about its installation by the employes. Then again such a plan will only continue to function properly if the confidence and interest in its activities are continuously stimulated and if the company's attitude is sincere and its honesty of purpose constant and unquestioned. Fortunately specialists have made scientific study of these matters during the past decade and have devised ways and means of assuring the successful installation and functioning of ideal representation plans fitted to the peculiarities and characteristics of each plant and industry.

Returning to the welfare movement, most every corporation that engaged in these activities has deflated them to a point where they are almost non-existent, and there is a constantly growing conception in the minds of our industrial executives as to the policy which is productive of best results. They have learned through bitter experience and waste of huge sums in welfare

"The factor which controls the productive effort of every workman is his motive. The welfare bubble was a misplaced effort by Management to develop the employees' motives . . . yet today Management is giving 95% of their attention to plant and equipment and only 5% to men. In the average business, cash invested in payroll will exceed cash invested in plant and equipment within two or three years"

"Professional leaders of radical labor organizations grasped the opportunity of capitalizing on Management's error, and at their instance 'welfare work' earned the cognomen 'hellfare work'"

effort that the conception of the identity of interest and its result in economic production can only be accomplished through the conviction in the minds of the workers that they are receiving a square deal from Management. They have learned that wages alone do not control productive effort, and that it often turns out that the more the employer pays the less the employe delivers. The formula of increasing wages does not necessarily bring about increased production. Neither does vocational skill control productive effort. Analysis proves that countless employes who are vocationally fit are delivering from 25% to 50% less than a full day's work. Some of the shortest producers are well trained men in their vocations.

The finest of working conditions is a factor but does not control productive effort. A well-fitted harness does not make a good horse, though an ill-fitting harness may lose the value of a good horse. All these elements are factors, and it is now being realized by executives generally that the worker's *appreciation* of all of the elements pertaining to his job determines his productivity.

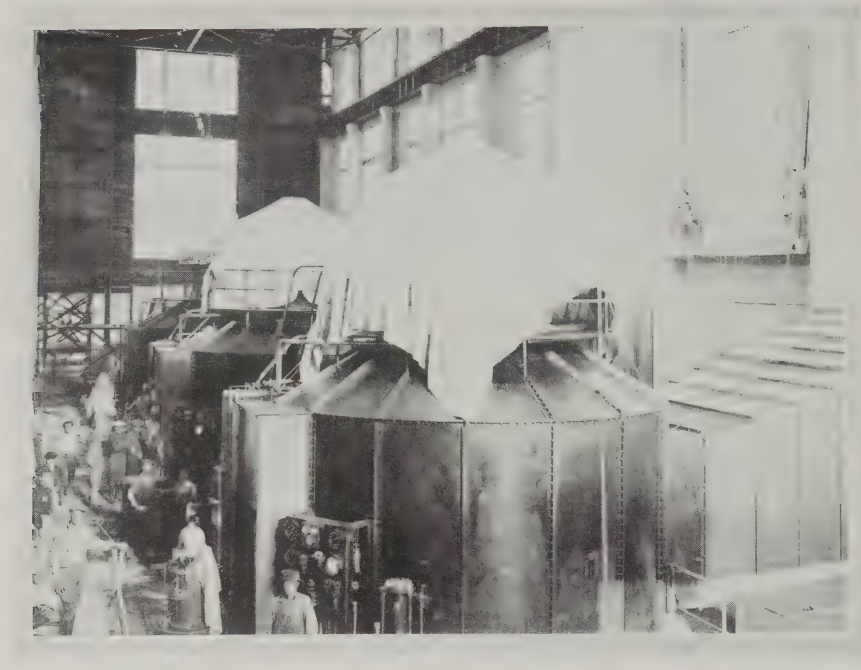
In other words the factor which controls the productive effort of every workman is his "motive." If a man kills another man, the law recognizes that "motive" controls action, and the state will ascertain the motive for the act. In industry the motives of workmen exert a tremendous influence for or against productive effort and are thus the root of vast losses on payroll investment. And yet employers pay little or no attention to the *motives* of employes.

The welfare bubble was a misplaced effort by Management to develop the employes' motives. Most executives have learned from that fallacy, yet even with the full realization of the huge losses and the proven failure of welfare plans as a means of developing motives, Management today is giving 95% of their attention to plant and equipment and only 5% to men, the reason for that being that the executive quite naturally thinks of his largest investment as being in plant and equipment. That is also a fallacy. His largest investment is in the dollars and cents invested in the payroll envelope. In the average business, cash invested in payroll will exceed cash invested in plant and equipment within two or three years.

The executive carefully safeguards the investment in plant and equipment. He would be a foolish man who would allow his plant to go a single night without insurance. How many plants today have a protection on the larger investment, that of the payroll envelope? Our industrial fire losses have averaged $200,000,000 yearly — strife losses have equalled $2,000,000,000. Though it has been tried, no insurance company has ever yet been able to withstand the losses in the writing of strife insurance policies. The cause of strife is lack of good will and common understanding. Industrial unrest is primarily due to lack of a healthy understanding between the parties to industry. Good will and understanding are based upon the conviction in the minds of the workers that they are getting a square deal, in other words, the analysis and development of the motives of employes.

The time will come when banks, before granting loans to their industrial customers, will demand a report on the attitude of Labor toward Management, the percentage of labor turnover, the percentage of waste of time and material and the degree of human effort in the development of motives having to do with good will and common understanding as compared to the payroll dollar. Banks are quickly learning to recognize that the human element factor in industry represents the greatest contingent liability (or asset).

The industrial engineering departments of banks are becoming of increasing importance in the rela-



"It was believed that high wages would stabilize turnover and increase productive effort. The result was the opposite — labor turnover mounted and oftentimes the more an employer paid the less the employee delivered"

tions between banks and their customers. The ability, experience and judgment of the personnel of such departments must be of a high order to properly assure against unnecessary losses. Furthermore, banks are extending their functions considerably beyond what were considered a few years ago as the limits of banking practice.

The numerous reorganizations at present require a close scrutiny of the human relations by the bank, particularly if the bank is deeply involved with the company. It is not at all unusual to find that the human relations are the cause of either success or failure. And the banks are particularly interested in assuring against loss.

Practically all banks recognize the necessity in their own organizations of good will, morale, co-operation, and the development of motives in their employes. As they become more conversant with existing conditions pertaining to the human element in industry, they are unable to disregard in their customers' plants evidences of ill will, dissatisfaction and misunderstanding as potential elements of under-production, poor production, waste, labor turnover, inefficient procedure, indifference and unrest. So their probe penetrates further than the balance sheet, and through their growing requirements the liquidation of human element problems in industry will be stimulated.

In almost every industrial community will be found instances where all welfare activities have been discontinued. So many physical evidences remain — large club houses and recreation structures that are no longer being used for the purpose originally intended — that it became unnecessary to point to any typical instance where welfare activities have proved an absolute failure. Nevertheless it is interesting to note the efforts of great corporations to extricate themselves from their welfare dilemma.

Very progressive organizations such as the General Electric and Westinghouse Corporations were forced to drop — very quietly — a number of welfare innovations.

The Youngstown Sheet & Tube had an enviable labor record but announced formally about a year ago the discontinuance of a large part of their welfare features "because employes do not seem to want them."

Armour & Company, at the time of their reorganization, made several significant changes in their "labor handling" policy.

The Colt welfare program was cut 80%.

The Loose-Wiles Biscuit Company had to toss a moving picture outfit into the discard when some 1400 girls avoided the shows.

The Underwood Typewriter faced a serious problem over a revolt against company dining rooms, recreation rooms, gymnasiums, guilds, and social clubs, before applying practical methods of reducing their program to proper dimensions.

One specific instance comes to our mind which illustrates the results obtainable through the application of the proper policy with regard to welfare activities supplemented by practical effort. About six years ago, one of the largest street railway companies had suffered a disastrous strike resulting from the domination of a labor organization and resulted in their being forced into receivership. Before building up a new organization they determined upon their policy with regard to labor matters and public relations. All activities that were in any way similar to welfare work were entirely carried on by the workers themselves. Each barn formed a team and all the teams comprised a league. They engaged a ball park to conduct their games and in two years were able to show sufficient profit to support the athletic and recreational activities on a scale that was most impressive.

A building and loan association was also organized by the men, and many of the workers benefited as the result of these activities to the extent that they were able to build homes at a price that was considerably lower than the market price locally at that time — in fact, they managed this association so efficiently and profitably that even some of the executive officers of the company requested permission to become members of same.

A brotherhood was organized by and for the employes and the constitution and by-laws were drafted entirely by the workers themselves. Each barn and craft was adequately represented — management also having representation on the different committees. This brotherhood in addition to dealing with matters

pertaining to the welfare of the employes also took a very active part in the public relationship — a factor that is of paramount importance in the successful operation of a traction property. This is due to the fact that a traction property is unable to supervise its employes as an ordinary industry would. The manufacturing and merchandizing of the product — the service of the traction company — being almost entirely carried out by the men themselves — the motormen and conductors, without supervision.

The attitude of the public toward public utilities at that time was very hostile, particularly toward fare and service regulations. The workers, through their development and proper understanding of Management's problems, voluntarily had petitions circulated requesting the proper support of the residents of different communities of Management's petition before the State Utilities for an increase in fare and principally because of this wholehearted support of the workers and many of the patrons of the territory served by the company, the Public Utilities Commission rendered a most favorable decision, whereas in the past adverse decisions were rendered — decisions which had caused not only this property but many other properties to go into the hands of receivers as well as abandon service entirely.

As a further indication of the close co-operation and understanding between the Management and workers on this traction property at the time this property went into the receivership, the workers — recognizing the possibility of the Federal Court appointing officers to conduct its operation and being conscious of the possible setback this property might suffer because of employing men who were not intimate with the local peculiarities as well as because of the intimate relationship between the men and the executive officers of the company — the workers voluntarily employed counsel in order that proper representation would be enjoyed by them before the Federal Court and appealed to the Federal Court to leave the official family intact. The Federal Court, recognizing the plea of the men, granted that the executive officers of the company remain.

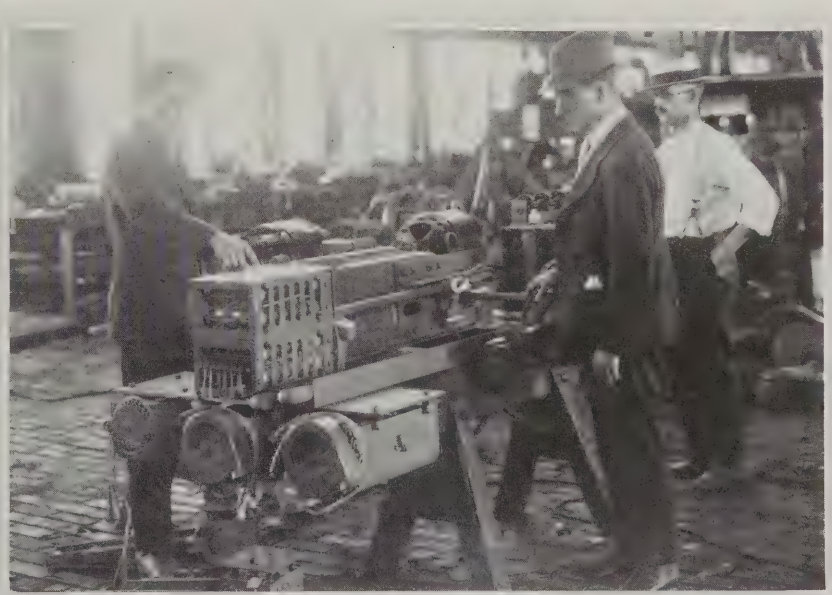
That the decision of the Federal Court was sound was clearly demonstrated by the fact that the property has earned a reputation for this company as being one of the most efficiently operated properties of its size, handling at one time the largest convention without a single avoidable accident.

The results of this policy and its practical application by this company is about to result in the property emerging from the hands of the receivers in splendid financial condition.

The puncturing of the welfare "bubble" was accomplished through the penetrating intelligence of the workers. Management — however honest their motive may have been — was "discovered" by the employes. Consequently today we find a general reversion to methods practiced prior to the war, supplemented by certain practices which have been found to be in the interest of both parties. Yet, in their application, care is exercised to prevent any "uplift" or "welfare" impression in the minds of the workers.

Simple plans of helpfulness which are not topheavy with theory or embellished with unpopular frills are welcomed by workers where they are thoroughly understood. Medical inspection and clean, safe shops are good business — both from the standpoint of the compensation laws and of production. Care in selection and training of new men both vocationally and in the simple problems of business economics is more important than the investment in raw material, and is appreciated by applicants as well as by permanent employes. The development of supervision's methods of handling men is being given close attention and still offers large room for improvement. Progress is steady in the science of employe representation, as a means of providing self-expression and recognition of the dignity of Labor in terms other than money.

Our most enlightened corporations are recognizing the fact that the problems pertaining to the human element in industry require highly specialized ability and experience. The president of one of the largest corporations said to the heads of subsidiary corporations — "None of you has a man in your organization too big for the job." Charles H. Sabin of the Guaranty Trust Company of New York said: "It is highly essential that the changes be rightly guided and that they proceed along sound economic lines. Otherwise we shall have revolution, anarchy, and loss and suffering all



"Our most enlightened corporations are recognizing the fact that the problems pertaining to the human element in industry require highly specialized ability and experience"

along the line without compensation to anyone."

The average employer and his management are handicapped in making progress in obtaining the confidence and understanding of his workers through difference in viewpoint. By reason of Management being Management there is a greater handicap in educating workers to a comprehension of Management's problems, simple economics and "the identity of interests." Comprehension and appreciation can only be brought about through educational methods — not the kind of education where the employes are called together and given certain lessons or lectures — nor the education that comes from the executive down, but an education that the employe will listen to, understand and believe. This type of education — Man Engineering — because of its uniqueness in character — obviously requires the same degree of specialized skill as does engineering of any other description. The science of man engineering along educational lines without the "professor" or "school room" flavor, is of necessity receiving wide recognition as the sound means of obtaining economic production through a common understanding of the "square deal" policy. For it is a scientific fact that the same causes will produce the same results.

There must first be a correct understanding by Management of the viewpoint of the employes as to the working conditions, wages, supervision, facilities and environment. Conditions which present cause for real grievance and are correctable should be removed. Then the systematic, well prepared, organized campaign of education should be launched, based on careful study. It should deal with the advantages of our form of government, our industrial systems, opportunities for learning, commercial progress and happiness, and a correct understanding of simple economics so that the beneficial opportunities will be appreciated.

Observation teaches us that we are on the threshold of the science of the human element in industry. Today we are but opportunists in industry; we grab here and grab there, and success is measured by the amount that sticks to the grabbing fingers.

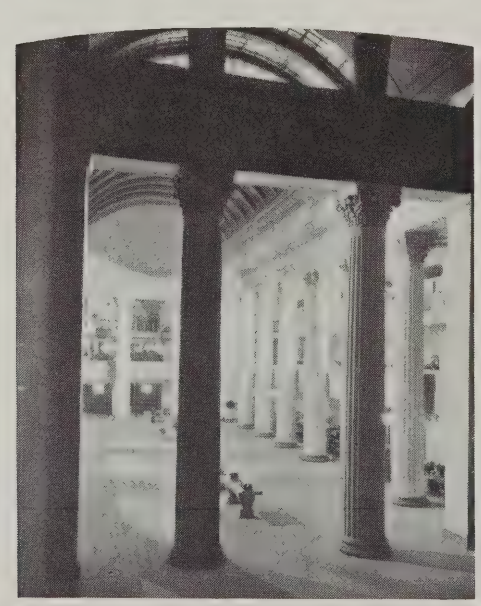
Most executives have a natural inclination to believe that their proven leadership is quite sufficient to cope with employe relations problems. That was true in the old days when the employer worked at the bench with his employes. Today our labor problems are admittedly complex and the probabilities are that those of the future will require the application of scientific methods through specialists, to survive the coming intense competition at home and from abroad.

Stability of employment and the development of a permanent working organization are a major requirement to economic production.

We have learned we can no longer drive employes so as to obtain quantity production. They will not submit to the old driving tactics. Moreover, we know that when emphasis is put on quantity production, the quality decreases, and when emphasis is placed on quality the quantity also rises.

It devolves upon Management to create incentive plans adapted to every employe to stimulate interest in the job, for a man expending true creative forces supervises himself. But whatever is done for the employe and whatever innovation or plan is installed, it must be thoroughly interpreted and sold to labor if it is to bring wholehearted response — and experience has conclusively proven that this is highly essential if the plan is to meet with success.

Finally, the greatest of care should be exercised to see that all activities of a welfare nature should be instigated and carried on by the workers, otherwise the employer may expect a request from his employes to place his philanthropy or his excess profits in the pay envelope.



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The Historical as a Business Guide for Today

Frank observations as to the value of charts and their proper use by modern business men

By Geo. A. Coulton

Senior Vice President The Union Trust Co., Cleveland

There probably has been no time within the past two or three years when so many people were getting business forecasts from so many different sources as obtains now. The statistician, the chart "expert," the economist, the banker, railroad president, industrial manager, labor leader, college professor, politician, and publicist, are being quoted daily upon this very interesting problem. This and that theory and advice is being put forth by its special advocate, while every mail broadcasts thousands of trade or business services and letters. He who can discern from this mass, a definite or concrete current in his own business is indeed fortunate.

I do not depreciate the value of historical facts, nor do I undervalue fundamental economics as applied to industrial and financial conditions, but in the interpreting of such information for present day use, I firmly believe that the great war, and the tremendous and far reaching changes which it caused, has affected and now influences former statistical relationships so very materially, that I prefer, in these immediate post-war times, to look for guidance directly into *existing* conditions and into those actual situations which have obtained since normal times disappeared.

It is very evident that the United States can now produce or manufacture in eight or nine months sufficient of everything consumed to care for twelve months' requirements. It is evident that factories operating three or four days out of six, at daily wage rates previously set for high periods in full six-day operations, make manufacturing costs much too high. Furthermore, the public will not long continue to buy at these inflated prices; in fact, we are now passing through such a period called a "buyers' market."

The energy and ingenuity of American business men, industrial executives and financiers, will work the situation into a normal one in time. Perhaps it will take some years yet, and there will be mistakes, of course, in the process, but it will be accomplished, and very likely in a remarkably short time, considering the vastness of the task, and the great difficulties to overcome.

We are now in a temporary halting period. There will be other similar periods. But, in spite of all difficulties, the mere fact of making progress is in itself an encouraging and helpful sign of great value.

I have frequent opportunity to discuss tendencies and policies with business men who are engaged in this great business reconstruction job. Through them one obtains indirectly a reflection of what hundreds of others are working upon and thinking about, and I am frank to say that when I can gain an idea or fact from this composite source of information and judgment, I prefer to plan upon such, and I am not greatly disturbed by those who are interpreting historical signs or charts to give them conclusions which may appear to them to be running a different course.

In the last number of this publication confidence was expressed in the return of better business in the early fall of this year. I am even more confident of that position now — no great business boom to be sure — but a steady and gratifying improvement over the situation which existed during this past summer.

It would appear now that the farmer, who has had a bad situation to contend with in the past few years, will find 1924 much more satisfactory. This will be most helpful to all industry as well. The railroads will make large expenditures for improved terminals and track during the next several years. Great power plants and electrical development projects are in the making. Home building will continue, probably at somewhat lesser costs, but this will make easier living conditions for all people. As excess production capacity grows less, more continuous employment at good wages will greatly improve the yearly income of the workman.

Style changes in most everything very rapidly in this country, and obsolescence is great, but generally, this will be absorbed by betterments in manufacturing through more efficient machinery and methods. We are a moving, a changing, a progressive, and ambitious lot of people. This creates industry and business, even though we get into some troubles now and then along the way. Our population is increasing, and their wants are increasing, perhaps, at a greater rate, and somehow or other the great majority of people find a way to fill most of their reasonable wants. Seasonable and spotty bad places will always be present, but the great, onward movement in industry and business just keeps right on moving and growing. Situations change quickly — sometimes for the worse — but they can and do change just as quickly for the better.

Let us have more of friendly, sensible consideration by worker, and employer, by public officials and business men generally. Let us admit that one group cannot prosper long by attacking another group. Surely our common difficulties, which are world-wide, are great enough to demand a helpful attitude one toward the other, to the end that all may improve together, and in a just relationship. This is simply a plain, sensible desire which every one should feel.

AMERICA'S DEPENDENCE *or* INDEPENDENCE *of* EUROPE

An interview by J. GEORGE FREDERICK
with PROF. DAVID FRIDAY

PROSPERITY and politics both appear to have much to do with the moot question of America's economic relation to Europe.

What are the facts? Is America an "isolated empire" with all the elements within itself of steady unswerving prosperity; or on the contrary, are we decidedly, or partially dependent upon the rest of the world?

Obviously this is not a question for laymen to decide. It is a question for economists. Politicians may take the side befitting their stand on the international political situation, and business men may assert confidently what they know from some isolated field of business. The issue, thereby, is only confused.

After all, the mechanism of the relationship of the United States to the rest of the world is technically known and understood, and its history is recorded. A financial and agricultural economist like Dr. David Friday must certainly be a more likely man to see the thing in full perspective than the average man, because it is obvious that one of the weightiest factors in the situation is the disposition of the exportable surplus of farm products.

Dr. Friday at once assented to this. "Unquestionably the American farmer needs and is dependent upon the rest of the world. It is quite impossible to expect that America can absorb all its production of wheat and cotton — to speak of these only. The exportable surplus is very large, and the world's need is equally large, despite the increased foreign production since the war.

"The American farmer has had a real education in the last few years regarding international economics. The tariff on wheat which went into effect in April has not had the hoped-for effect of raise in price, naturally because we are a wheat exporting country, not a wheat importing country. Out of 786 million bushels of wheat produced in 1923, almost one-quarter or 172 million were exported. In the case of cotton, we export almost two-thirds of our crop — 6½ million bales, as against 10 million bales total production. As for tobacco, about 500 million pounds were exported — more than one-third of the total production.

"Decidedly, then, the American farmer must have the foreign market; and it therefore follows that he is wise to foster the purchasing power of his foreign markets. You can't simply sell and ask for your money; international economics is not operated that way. To enable your customer to buy your enormous volume of exportable farm products, you must exchange some-

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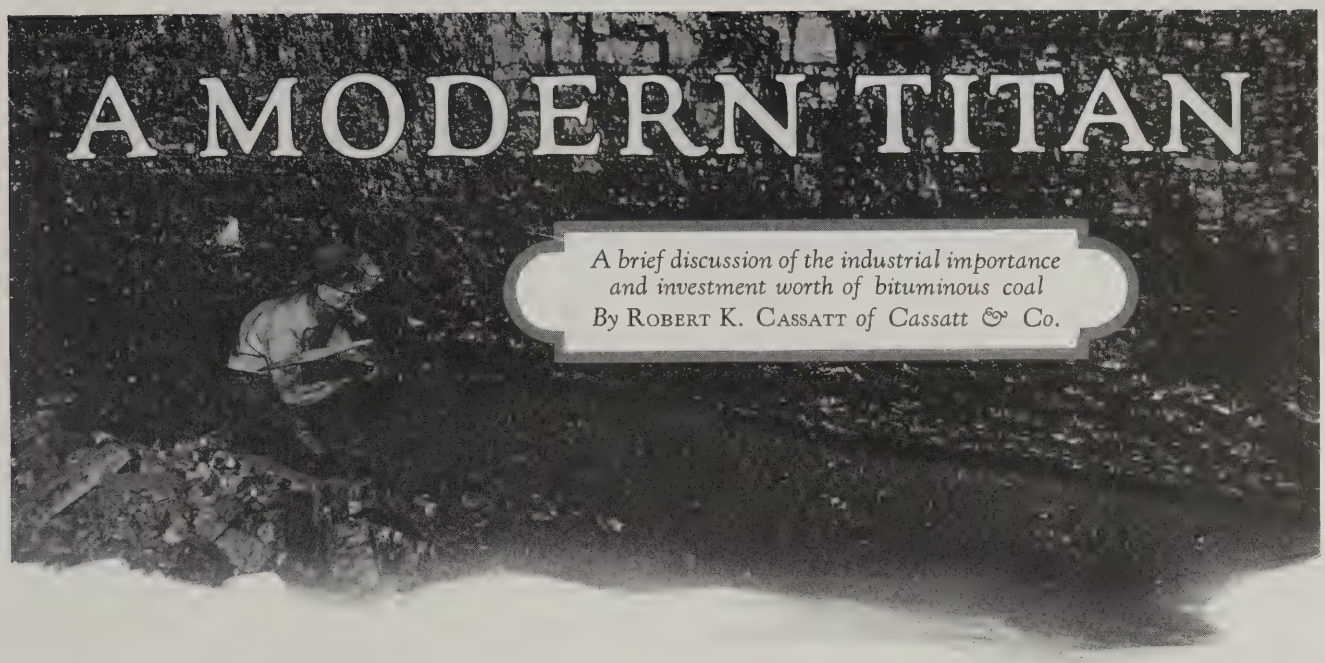


A MODERN TITAN

A brief discussion of the industrial importance and investment worth of bituminous coal

By Robert K. Cassatt *of Cassatt & Co.*

Coal may fairly be called the keystone of the world's industrial structure. The record of coal consumption is an index of industrial activity.

As a source of power at low cost, the supremacy of coal has never been challenged. The generation of power by great hydro-electric systems and modern oil-burning machines supplements the work performed by coal without lessening its importance in any degree.

To such nations as have been possessed of adequate coal reserves have gone the major rewards in industry during the last century.

When the threatened exhaustion of England's forests made necessary a substitute for charcoal in the smelting of metals, the coal miner set to work. In a few years not only had Great Britain multiplied her furnace, mill and factory production, but coal exports were established as a strong support of her merchant marine.

Japan's emergence from industrial mediocrity to the leading position in the Orient was hastened by the development of her coal mines.

The United States was able to increase iron production until it exceeded the combined output of all other countries because Nature had laid down rich beds of coal within her boundaries close to great bodies of ore. When ore deposits and coal are not in close proximity, the rule has been that "Iron goes to coal."

Coal and iron have been partners in the evolution of modern industry.

Approximately 80% of all the coal mined in the United States is bituminous. It stands practically alone among fuels in cheapness, ease of handling and economy in use.

The annual American output, calculated in average prices to consumers, has more than 2½ times the value of the wheat crop and nearly twice the value of the cotton crop.

> Food and water alone outrank coal among the necessaries of life. An uninterrupted supply of these three is a requirement of urban life as we know it today. Though anthracite ministers to health and comfort in several million homes, bituminous coal is the real foundation of that great industrial and transportation structure which enables more than a hundred million people to live in America and be so well supplied with all those things necessary for their health, comfort, and convenience, and bituminous coal also furnished domestic fuel for two-thirds of the homes of the land.* * * Shut down its coal mines and the whole country would soon be not only cold but idle and hungry.
>
> — *Extract from Report of United States Coal Commission, September, 22 1923*

Wealth in many forms exists in coal. Bituminous is the basic raw material in the production of coke, gas, benzol, ammonia and tar. The derivatives of coal tar are invaluable in the manufacture of dyestuffs, medicines, fertilizer, roofing materials, etc.

More than a thousand by-products of coal are made in commercial quantities and sold in the world markets.

A survey of power resources of the Eastern seaboard from Washington to Boston, extending 150 miles inland, was made under direction of the late Franklin K. Lane, Secretary of the Interior. The energy requirement of this zone by 1930 was estimated by the commission of inquiry at 31,000,000 kilowatt-hours, of which at least four-fifths would have to be supplied by steam plants.

This "super power plan" was worked out on the basis of co-ordinated steam and hydro-electric plants. The pivot organizations were to be steam plants already existing or to be built in principal seaboard towns.

So rapid has been the development of electrical engineering that the findings of the Lane Commission are already obsolete in important details. Electric current can be transmitted for much greater distances from generating plants, than was possible a few years ago. The range of transmission promises to increase. It is clear that the economical production of electric energy on a vast scale could best be effected by the location of huge generating units *at the coal mines*, reducing the transportation of fuel to a minimum, keeping operating costs at bed rock.

After all the available hydro-elec-

tric energy has been developed, a "super power" program, such as is contemplated for the great mill and factory region of the Eastern states, must rest upon a foundation of bituminous coal.

The bituminous reserves of the United States are estimated at 1,918,310 millions of long tons — more than half the world's known deposits. This coal in the ground assures domestic industry of sufficient fuel for hundreds of years.

Bituminous coal is mined commercially in thirty-one states. More than 75% of the annual output is produced, however, in Pennsylvania, West Virginia, Illinois, Ohio, Indiana, Alabama and Kentucky.

Several economic reasons exist for the concentration of production in this area. First, the coal is of exceptionally high quality for steam making purposes. Second, proximity of the mines to highly industrialized territory gives Eastern, Southern, and Middle Western coal a material advantage over the more distant product in respect to freight rates. Third, Eastern and Southern coal, being near the seaboard, are in position to compete with the foreign product in the export markets.

Nearly all the bituminous coal produced in the United States is consumed at home. Exports of the last 10 years have averaged about 4½% of the annual output. The normal distribution of "soft coal" to domestic consumers is in this proportion:

Industrial plants	32%
Railroads	28%
Coke manufacture	15%
Dwellings	10%
Public Utilities	7%
All other	8%
	100%

Deposits of coal are generally measurable with substantial accuracy.

To determine the solid content of a bituminous coal seam, the engineers consider three factors:

.....Thickness of the seam as developed by mining operations, outcrop facings, or the cores of diamond drill borings; sometimes a combination of these methods;

.....The land acreage underlaid by the seam or within its outcrop;

.....The weight of coal per cubic foot.

The acreage underlaid, the areas involved and the specific gravity of the coal can be absolutely determined.

A cubic foot of bituminous coal, in the solid or unmined state, weighs on the average approximately 84 pounds, or about 1,800 short tons per foot per acre. A seam averaging four feet in thickness contains, therefore (1,800 x 4) 7,200 tons per acre: a five-foot seam 9,000 tons per acre.

The engineers' measurements having been made, it is a simple calculation to express the total content of solid coal in any unit of area.

The percentage of coal recovered depends upon the character of roof and floor of the seam and other physical conditions. Where such conditions are favorable a high percentage (90%) is recovered; but always such recovery can be approximately determined by the practice

"The annual American output of bituminous coal calculated in average prices to consumers has a value of more than two and one-half times the value of the wheat crop and nearly twice the value of the cotton crop"

The entrance of a modern mine bottom. Note the steel girder construction supporting the roof and the electrical train facilities

A modern electrically operated cutting machine in action — a machine for which the pick has been discarded with far better results for the company and more favorable conditions and compensation for the miner

in the region and the engineer's investigations.

Coal Land as a Basis of Credit

The bituminous content of a given area of land is permanent wealth of an essential kind until it is mined and consumed, for coal will not disintegrate nor dissolve while in the earth.

Because of its enduring character and the constantly growing demands of industry for fuel, unmined coal affords exceptional security for loans. Money borrowed under mortgage on well-equipped, efficiently managed coal property, supplying established markets at a reasonable margin of profit, is not only safeguarded by a valuable, imperishable commodity but also assured of repayment from proceeds of the collateral (the coal itself) as it is mined and sold.

The financing of bituminous mining enterprises is a specialized undertaking in the banking field. We have been convinced by experience that certain fixed principles are essential in the provisions — the "set-up," so-called — of bonds issued under first mortgages on producing property. These principles we have found to be just as desirable for the borrower as for investors in the bonds.

The coal against which bonds are issued must be equal to the best coal marketed in the territory which it can reach under competitive freight rates.

It is also desirable that the active management should have a substantial cash investment in the property in securities junior to the first mortgage.

The value of the mortgaged property must be about twice the face value of the bonds issued

Property value must be ascertained through an independent appraisal by engineers. This appraisal must be made on the basis of acreage value of similar coal lands in the district under consideration. The engineers must also report favorably on mining conditions, labor supply, car supply, markets and cost of production. The latter must compare favorably with the costs of other operators in the field.

Bonds must be secure by an absolute first mortgage on the Fee Simple Title to coal with sufficient surface for operations

The issuance of mortgage bonds on leaseholds, unless on unusually favorable terms, is rarely approved for the reason that, in effect, such mortgage bonds are second in lien to the rights of the landlord.

The amount of bonds issued must not exceed $3.00 bonds per ton of annual output

By annual output is meant, not the theoretical capacity of the mine or mines, but what they have proved themselves able to ship over a considerable period. The reason for this stipulation is that experience would seem to show that an interest charge of more than 18 to 24 cents per ton cannot be safely met over a long term of years.

Principal of bonds must be paid in full before more than 50% of the recoverable mortgaged coal has been extracted

The principal payments are to be met from an annual sinking fund with minimum annual payments, or by the issuance of serial bonds. In the latter case, there should still be a sinking fund, based on tons mined, for the reason that if the output becomes unusually large, the coal might be exhausted before the last principal payment was due.

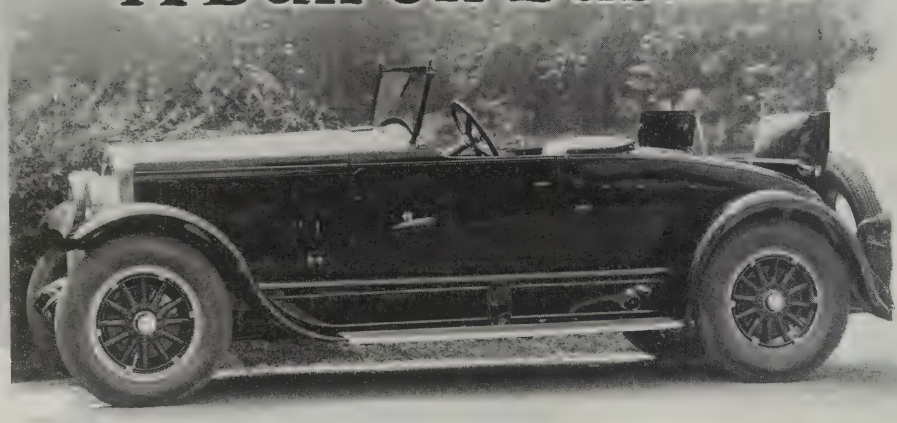
Average annual earnings for the previous three or more years must be at least twice the annual minimum sinking fund (or maturity) and interest on bonds combined

When war years are included in average annual earnings it is essential to scrutinize such earnings with

Please continue on page 24

Why I am A Bull on Business

"Ned" Jordan



By Edward S. Jordan
President Jordan Motor Car Company

Young men who have known regret that they did not live in other days need but little vision to discern that we are living in the greatest time, in the greatest country on the face of the earth — and more golden days are coming.

Since the world began, small minded people who never think of anything except themselves, and never read except to put themselves to sleep, have been talking about the world going to the dogs.

Some passengers on the great American roller coaster who are exhilarated as we rise to dizzy heights in periods of inordinate prosperity, express the feeling of the old lady in the elevator when we pay the penalty of extravagance by readjusting ourselves to more normal living. They feel that the world is slipping.

But they are gifted with but narrow vision.

I am a bull on business for the coming year — I am a bull on business for the long pull — I am a bull on the United States — on the American people — I am a bull on the coming generation.

Of course we will have a new alignment of political parties — the conservative and the radical.

Of course the coming generation of daughters and sons will give evidence of the reaction against grandfather's old policy of telling them nothing.

Of course we will have ups and downs as we exhibit character and indulge in hard work, or as we exhibit weakness and indulge in idleness.

There is only one thing I regret and that is that I cannot live for another hundred years. The progress of the world is so intensely dramatic and the possibilities of the next generation so tremendous.

Three things determine the economic and cultural progress of the world. These are — transportation, agriculture and communication.

That nation which attains the highest economic development in these crafts will always dominate the world. They constitute the measure of civilization, because the spread of civilization depends upon the reduction in the cost per ton mile of transportation, the reduction in the cost of food production and the broad dissemination of education through rapid communication.

Mr. Atterbury of the Pennsylvania Railroad was right when he said, "There can be produced with cheap water power a kind of metal that will revolutionize the transportation of the world. This will be an aluminum alloy, cheaper, lighter and better than steel."

That's what Ford is thinking of in connection with Muscle Shoals.

With aluminum now at 28 cents per pound, and the price of bar steel $.0305, imagine the saving that could be made in the weight and economies of all vehicles of transportation if a new and better metal could be produced to sell at the price of steel.

Some people think that the tractor business has few possibilities.

Ford knows that the tractor, with modern farm implements yet undeveloped, will revolutionize agriculture, while the automobile, the radio and the telephone will break down the political, economic, religious and language barriers which separate the peoples of the world.

Five things brought about the present great industrial era which gave to the United States a total wealth of three hundred billions, while the wealth of her nearest rival, Great Britain, is only ninety billions.

These five things include —

First — Steam as a prime mover in transportation.

Second — The Bessemer process of making cheap steel in volume.

Third — The McCormack reaper to replace hand power on the farm.

Fourth — The Internal combustion motor which made the automobile possible.

Fifth — The development of a

Like Jim Hill, Ned Jordan is a "Bull on America." One of the nation's most successful business men is he, gifted with a vivid imagination, yet with his feet always resting on bedrock. His writings, like he himself, move with the speed of an express aeroplane reflecting the vigorous honesty of purpose, optimism and virility of their author. You will enjoy "Why I am a Bull on America." It contains much fact of a sort we are too prone to forget and to discount in the pressure of our petty affairs.

When the Stream of Life Flows Gently

CHILDHOOD is like a brook—lighthearted, carefree and joyous. Then, like the brook—life gradually grows larger and carries the burdens of business, perhaps is dammed and turns mighty mills, producing much that many may profit.

• • •

Then after the last raft has been floated—the last mill wheel turned—and while it may support much traffic, it flows peacefully and gently on to the sea.

• • •

And so with you—when your life's work is done, while your investments are still helping support the business world, you will have many years of calm enjoyment ahead of you.

• • •

These peaceful years can be still happier if your estate and insurance are placed in a trust so that they will be used as you wish—so that your loved ones may benefit. *You should talk to the*

TRUST DEPARTMENT

The UNION TRUST *Co.*

CLEVELAND

Resources over 290 Millions

The progress of fifty years of transportation — from the miniature locomotive to the 291-ton monster of the Union Pacific

"It's a great thing to be crazy — just as crazy as Ford, as Edison, as Steinmetz, as DeForrest, as Kettering"

nation wide system of communication by telegraph, telephone and radio.

However, while transportation and communication are going ahead at a rapid rate, the business of agriculture has been lagging behind.

Politicians have been trying to convince the farmers that what they need is legislation.

What they really need are more modern implements — and to get out of politics and get back to farming.

Not long ago the United States government appointed a commission for the relief of the Balkans.

Everybody knows that the corn belt extends around the world along the fortieth parallel. People wondered why Servia did not produce corn like Illinois and Iowa.

The commission spent a quarter of a million for machinery and seed, and in one season turned Servia from a starving nation into a nation producing enough food for home consumption with thousands of train loads for export.

It only required brains, imagination, soil, seed and sun.

The tractor is in the same position now that the automobile was in 1905.

Millions of them will be used to cut down the cost of farm production.

As Ford said, "The trouble with the farmer is that he would rather carry water one hundred yards in a pail than put in a pump and pipe it to the barn."

A woman in Virginia was walking one hundred and forty miles a year to get water for her work. A small hydraulic ram and storage tank costing $50.00, put running water in the kitchen.

Ten years ago the fastest train carried mail from New York to San Francisco in a little more than four days. Mail a letter today in New York or San Francisco, and see what happens in thirty-five hours.

I picked up a telephone in New York the other day and got Los Angeles in five minutes.

Radio, multi-telegraphy or many messages over a single wire, and the long distance telephone have made America a nation of one people, one language and one ideal.

Not many years ago a man in the United States Patent Office decided he would resign. He thought the office might well be discontinued as everything worth while had already been patented.

Listen while I briefly tell you some things that have happened and some that may happen in the future.

It is a great thing to be crazy — just as crazy as Ford — as insane as Edison — as mad as Steinmetz — as wild as DeForrest — and as daffy as Kettering.

Think how crazy Goodyear was to be monkeying around with a combination of crude rubber and sulphur. Think how clumsy he must have been when he accidentally dropped some of it on a hot stove and discovered the secret of vulcanizing.

Think how foolish was the man who decided that the old carbon filament used in the incandescent lamp was too brittle. He conceived of the new tungsten filament which is three times more efficient.

Imagine a bar of tungsten fourteen inches long with a quarter inch cross section drawn into a thread twenty-

"The super-automobile of the future will sell for a small sum. Practically every man, woman and child may have one. They will furnish transportation and that is all a man really needs. . . . The development of the internal combustion motor, making the automobile possible, is one of the five things which has brought about the present great industrial era"

five miles long and one sixth the size of a human hair.

Consider the nerve of the man who conceived that he could produce in a few days a substance which it took nature one thousand years to make — and that is carborundum.

Imagine the possibilities in the heat treatment of metals.

The production of drop forged aluminum connecting rods has made possible a reduction of fifty per cent in weight and an improvement in quality.

Scientists tell us that there is enough power in an atom, a molecule or an electron, to make Niagara Falls look like a tiny fountain in a city park. These atoms of matter are so inconceivably tiny that you could park more than two billion of them on the head of an ordinary pin. Each is said to contain a whole solar system not unlike that greater system of the sun and planets on which we ride.

"The development of a nation-wide system of communication by telegraph, telephone and radio is another item which has brought about the present great industrial era" — and here we see the circuit of the radio impulse from Washington to Warsaw, Poland, and return in .054 of a second

The human body is really nothing but a mass of flying electrons.

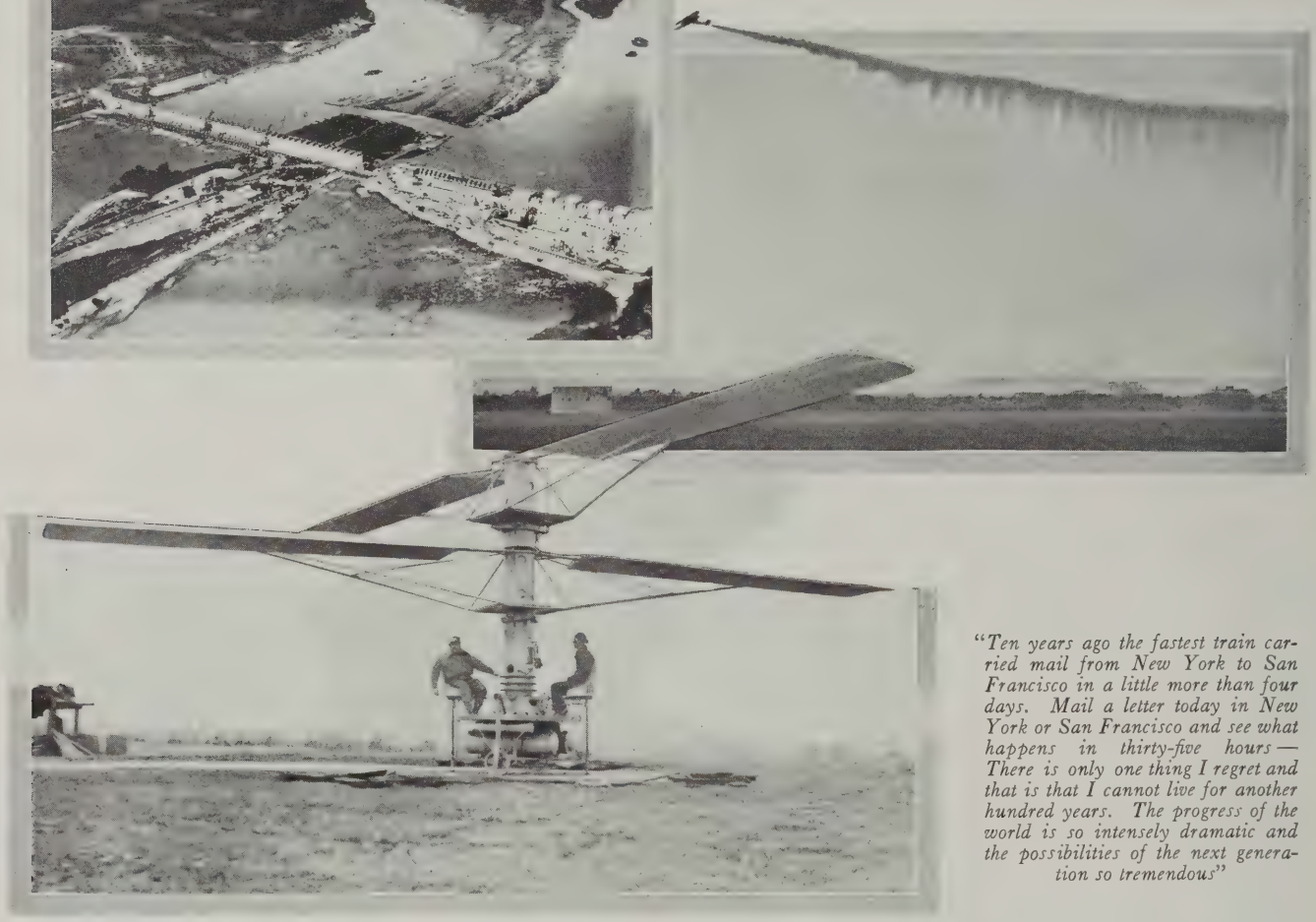
In a copper atom, for example, some of the electrons move with a speed of more than 39,000 miles per second.

If the energy of electron motion in your body was suddenly released the explosion would not only wreck you but would wreck the neighborhood.

Think of what could be accomplished if such power was brought under control.

A young man has constructed a model wireless city in his laboratory. He believes that it will be possible for an entire community to receive its heat, light and power

A portion of the Muscle Shoals power project — "There can be produced with cheap water power a kind of metal that will revolutionize the transportation of the world — aluminum alloy cheaper, lighter and better than steel"



"Ten years ago the fastest train carried mail from New York to San Francisco in a little more than four days. Mail a letter today in New York or San Francisco and see what happens in thirty-five hours — There is only one thing I regret and that is that I cannot live for another hundred years. The progress of the world is so intensely dramatic and the possibilities of the next generation so tremendous"

by radio from a central station perhaps one hundred miles away.

The chief engineer of motive power of the New York Central Railroad predicts that the human element in railway transportation eventually will be practically eliminated. Automatic control signals and complete electrification will accomplish this.

The radio home of the year 2000 could practically be built and equipped today if you wanted to spend the money. Every household task, including the running of your automobile from the garage to your door, could be accomplished by pressing a button.

Young John Hays Hammond has controlled ships at sea by radio from land.

Imagine George Washington witnessing the spectacle of the Twentieth Century Limited flying down the Hudson River valley with a flock of aeroplanes flying overhead, having just completed the circumnavigation of the world by air.

Imagine his sensations listening to President Coolidge on the radio, or the voice of Caruso, now dead, on the Victrola.

When the Declaration of Independence was signed the world was moving by horse power and sailing vessels, lighted by whale oil lamps, and the farmer worked with hoe and scythe. We had no steamships, daily news, movies, telegraph, anesthetics, electricity, fuel oil, wireless, Victrolas or automobiles, and yet people are always talking about the good old days.

"The solution of the whole European problem depends upon transportation, agriculture and communication. Two million motor cars and two million telephones would do the job more quickly than any other agency.

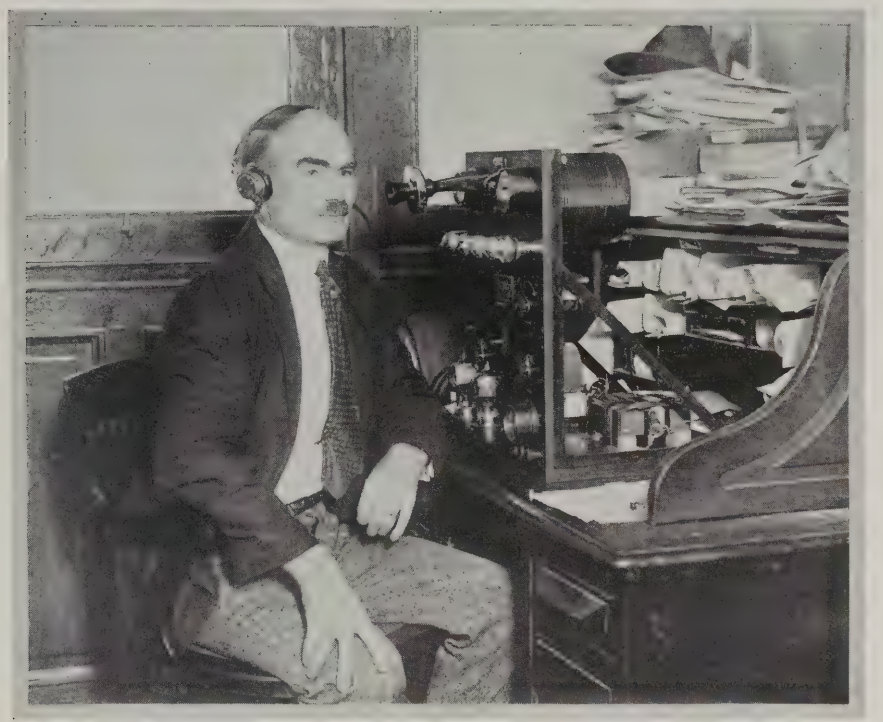
"What the farmers really need are more modern implements — and to get out of politics and back to farming."

The population of the earth has doubled in the last ninety years. The population of the United States is increased by nearly four thousand persons each day. It has been doubling every thirty years during the last century.

Science alone will save the world from the dangers of over population.

Ford was right when he said that the cities of the United States will spread over wide areas. Congestion will not be so serious as people think, and transportation will provide the solution.

Science will find a means of feeding the people. Steinmetz imagined a sort of bacterial bean or



Dr. Lee DeForrest who will probably join with Mr. Jordan in saying that "the radio home of the year 2,000 could practically be built and equipped today if you wanted to spend the money"

highly concentrated food. Burbank said we could have strawberries the size of apples.

Aside from chemical feeding, scientists will learn how to eliminate fatigue. Fatigue is a poison usually caused by improper circulation or improper elimination. A single dose of acid sodium phosphate will increase a man's endurance twenty per cent.

With radio, communication with all the people of the world will become automatic and instantaneous.

The solution of the whole European problem depends upon transportation, agriculture and communication. Two million motor cars and two million telephones would do the job more quickly than any other agency.

The total water power available in the world is 745 million horse power. Hoover said that super power will save thirty million tons of coal a year.

My son is entering Massachusetts Institute of Technology, determined to be a hydro-electric engineer. Even he knows in his youth that the great industrial development of the future will have to do with the production of cheap power, cheap metals and cheap transportation.

Centralized distribution of light and heat has already been achieved. The ice man, the milk man and the gas man will disappear.

The super automobile of the future will sell for a small sum. Practically every man, woman and child may have one. Europe is already producing them in considerable numbers. They are about as long as your office desk. They furnish transportation and that is all a man really needs.

Medical science has already added ten years to our span of life. Automobiles and golf will add many more. Regular exercise and a whole lot less food than most people eat will add still more.

Everybody complains that people don't stay at home as much as they once did. A lot of people stayed at home because they had no means of getting anywhere else.

While wonderful things have happened in the past, more marvelous things will happen in the future.

Expressed in the language of the flapper who twenty years from now will be sitting up worrying about her daughter who has just hopped over to London for dinner with a guy in an aeroplane, "We ain't been no where and we ain't seen nothing yet."

"The population of the earth has doubled in the last ninety years. The population of the United States has been doubling every thirty years for the last century. Science alone will save the world from the dangers of overpopulation"

English Business Conditions

By Barclays Bank Limited

September 16, 1924

The hesitating tendency noticeable in trading conditions has continued during the past month, and there are but few indications of any marked revival in business.

Although the final acceptance of the Dawes Report should lead to the gradual re-establishment of normal channels of trade, there is much perplexity at the moment as to the more immediate effects it may have upon this country's competitive industries, with the consequence that many traders are inclined to defer operations until they see more clearly how the position will really be affected.

In the coal trade, especially, business has been dull; the demand, both on home and export account, has declined, and some of the collieries are working at a loss, while others have closed down. The output during August was affected by the holiday season, but on the whole, production, although not so high as it was during the earlier months of the year, is fairly well maintained.

Coal Production in Great Britain

	Tons
1913	287,000,000
1923	278,000,000
1924 (Total to Aug. 30th)	182,000,000
1924 Week ended July 19th	4,903,600
Week ended July 26th	4,488,600
Week ended Aug. 2nd	5,010,300
Week ended Aug. 9th	3,446,100
Week ended Aug. 16th	5,193,100
Week ended Aug. 23rd	5,279,000
Week ended Aug. 30th	5,113,200

The iron and steel trade is a little uneven, for while in a few sections a fair amount of activity is in evidence, in many departments there is very little demand, and the new orders are insufficient to replace existing contracts.

The mills spinning American cotton have decided to continue their short time working of 26½ hours per week. The prospects, however, that the present cotton crop will yield an adequate supply of the raw material has given rise to more optimistic feelings in Lancashire, though buyers are still very hesitant in placing orders. There has been a fair amount of business with India, but buying for China has been adversely affected by the political disturbances in that country.

The strong statistical position of the raw wool market is causing some uncertainty in Bradford, where stocks of fine wool and tops are reported to be very low. A further advance in raw material values is expected, and top makers are not inclined to operate at the moment, until they have some more reliable idea as to the prices likely to rule at the London raw wool auctions this week. Although spinners have advanced their quotations, the prices of yarns have not responded fully to the increased cost of the raw material, and a further upward movement in yarn prices is therefore not unlikely. Manufacturers have recently added to their order books, both for internal and external account, but the gradual rise in the price of the finished article is viewed with some anxiety, as it is felt that any continued trend in this direction will have an adverse effect upon demand.

The Board of Trade figures relating to this country's overseas trade for August show some decline, compared with the preceding month, and a substantial excess of imports over exports is again noticeable.

(*See table at top of next column*)

For the last three years the figures have been as follows:

Eight months ended:	Imports	Exports (British)	Exports (Foreign & Colonial)	Exports (Total)
	£	£	£	£
August 1924	808,556,483	526,036,385	93,272,789	619,309,174
August 1923	704,009,640	502,286,237	78,747,448	581,033,685
August 1922	651,501,949	472,212,668	71,492,083	543,704,751

It will be observed that while for the first eight months in 1924 imports have increased by £104 millions, compared with the corresponding period in 1923, exports have only advanced by £38 millions. Of the increased imports, £26 millions are explained by articles wholly or mainly manufactured, while there is an increase of £54 millions of raw materials and articles mainly unmanufactured. Although the former increase is not altogether satisfactory, the latter advance indicates a replenishment of stocks and also some preparation for increased trade activity in the future.

Imports

	1923	1924
	£	£
July	76,860,906	108,115,498
August	88,420,981	102,196,492

Exports, British

	1923	1924
	£	£
July	59,503,850	71,283,289
August	60,103,360	66,288,294

Total Exports (including re-exports)

	1923	1924
	£	£
July	68,258,733	81,457,918
August	66,232,141	75,258,323

In the case of British exports, the increase in articles wholly or mainly manufactured amounts to £32 millions, but raw materials have declined by £17 millions, the whole of which is explained by reduced shipments of coal.

The number of persons on September 1st, recorded on the registers of Employment Exchanges in Great Britain was 1,162,700, which, although 122,900 less than the figures recorded on December 31st, 1923, was 120,000 more than on July 21st. We have now reached the season when the figures usually tend upwards, but the extent of the recent increase is a little disquieting.

One satisfactory indication is the improvement which has recently occurred in the freight market. The freight index number for August was 1.57 per cent. higher than in July, and 11.23 per cent. higher than in August last year. The upward movement last month was attributed to some extent to a slightly better demand for tonnage on German account.

Business Conditions

By C. L. Bradley
Vice President, The Union Trust Co.

Conditions at the moment register no marked change from a month ago, yet such changes as are apparent can, I believe, justly be interpreted at considerably more than their surface value.

Business with a high degree of unanimity reflects the feeling that a conservative revival is in sight the moment the election uncertainty is over. As this is written, predictions regarding the election are as numerous as is usually the case. The claims of the rival camps, as usual, are at variance, but observers, while reflecting considerable astonishment at the prominence of LaFollette, generally agree that Coolidge will carry by a safe margin if the vote turns out on election day. Practically all Coolidge prognosticators lay this one proviso upon his election — namely that the vote turns out. Obviously, under present conditions, an active minority of voters would have the same influence as a Congressional bloc, provided the majority fail to register their preference on election day. But it is not our function to deal in political forecasts, except insofar as they reflect the tendencies and influence business programs. To continue:

While the indications during the past month have been little more than signs of nominal improvement and cross currents are obvious, when the election situation is taken into consideration, it appears that they reflect a sober confidence in the ultimate outcome and a growing belief that business is due for a substantial step forward.

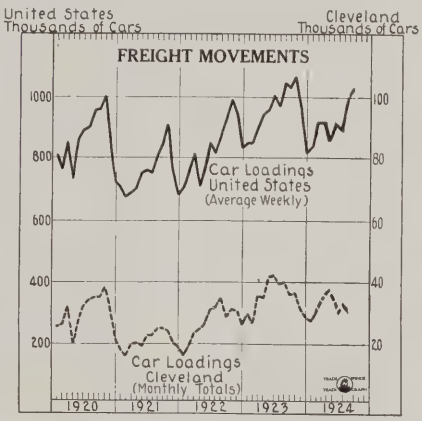
For example, manufacturers of labor saving machinery tell me that for the first time in many a day their estimating departments are working on twenty-four-hour schedules, indicating a high degree of optimism for the no distant future on the part of a number of large manufacturers, since such materially is generally specified six months ahead.

In the meantime small, but indicative symptoms of recovering optimism are apparent:

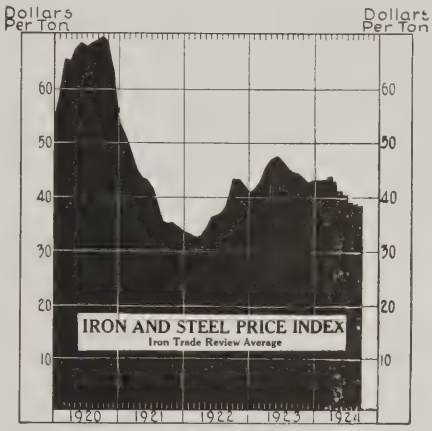
The decline in production evident for the last few months has obviously stopped and turned upward.

Wholesale Prices

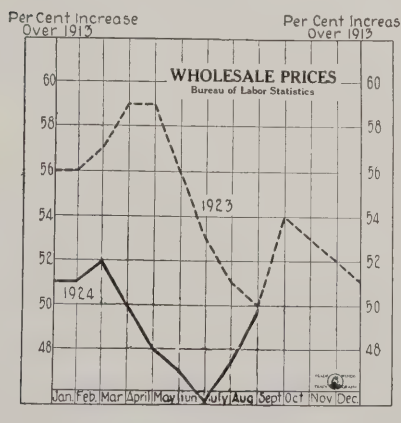
Wholesale prices have largely ceased to weaken and are either strengthening or actually increasing.



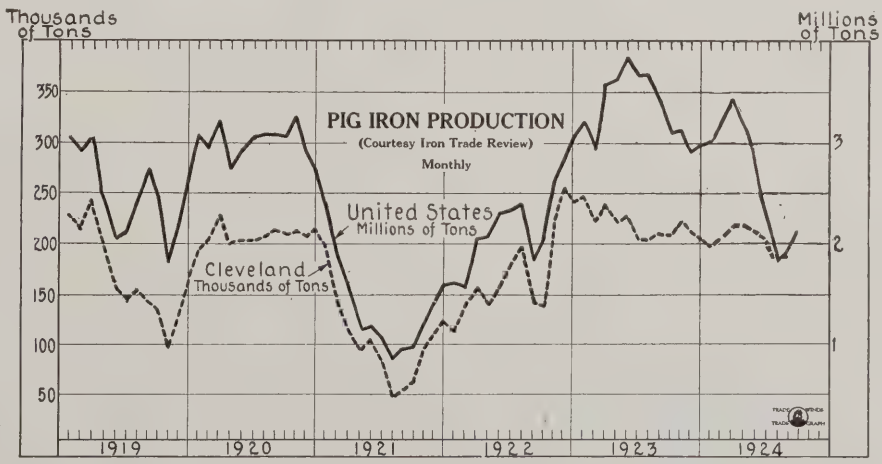
Car loadings in September vaulted to new heights for the year. They not only exceeded corresponding periods in previous years but approximated the highest total for all time. Freight movements are at normal or above, indicating a high rate of consumption of goods. Production has been running below normal, and higher outputs are likely to follow



The iron and steel markets were thrown into a state of uncertainty by the abandonment of the Pittsburgh basing point. No sharp concession in prices has been made, but the trend continues as previously, toward slightly lower levels. Iron Trade Review's composite market average now stands at $38.60 a ton or 46 per cent above the 1913 average



Wholesale prices continue to advance. In August, the index compiled by the Bureau of Labor Statistics climbed to 49.7 per cent above the 1913 level. This followed an increase in July. A glance at the graph will show that in July and August of 1923, prices were falling



Sufficient proof that the recovery of business this autumn is more than a mere seasonal flare-up is found in the record of pig iron production. Pig iron traditionally is not a seasonal industry. In August there was a gain of five per cent in the output of iron. The expansion in September was nine per cent, making a gain of fourteen per cent from the low point of the year in July. During the month there was an increase of 24 in the number of active blast furnaces

Carloadings

Carloadings in September again reached new heights, exceeding not only corresponding periods of previous years but nearly attaining the highest total for the history of railroading.

Iron and Steel

For the moment the iron and steel market has been upset by the change in the "Pittsburgh plus" method of pricing, but pig iron production has continued its recovery, registering a 14% gain over the low point in July with an increase of some twenty-four furnaces into active production.

Automobiles

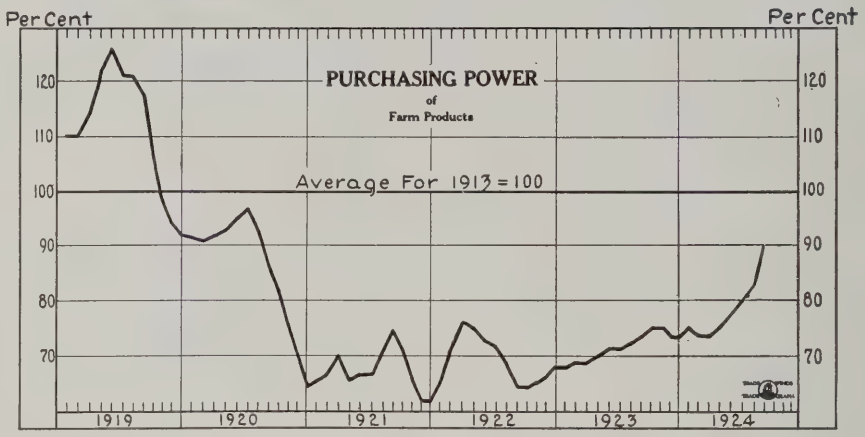
The automobile trade has experienced a good Fall and is facing the winter with exceptional optimism, which may not be entirely unfounded, although our personal feeling is that in spite of the comfortably busy condition of the moment the winter trade will show the usual seasonal decrease. Dealers are selling at a pace which leaves little to be desired, and the manufacturers have reduced their inventories to a conservative and safe basis. In short, this industry reflects a healthy attitude in its present condition and in its outlook.

In Summary

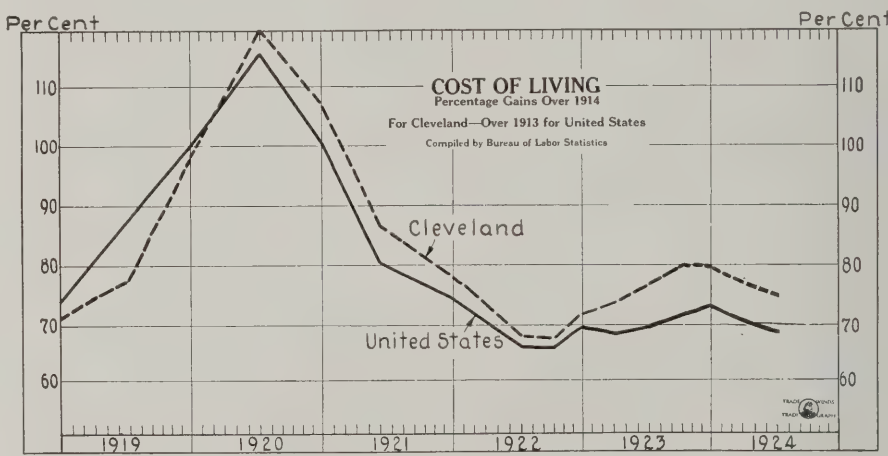
The list of minor improvements could be continued indefinitely, but the most substantial evidence of where business is going is likely to be found in the spirit of business men, and the spirit of the business world today is undeniably cheery.

We see no reason to feel fearful over the future, barring unexpected election results, in which case it is probable that the country would mark time for at least six months until the tendency of the incoming administration and its policies became fully established.

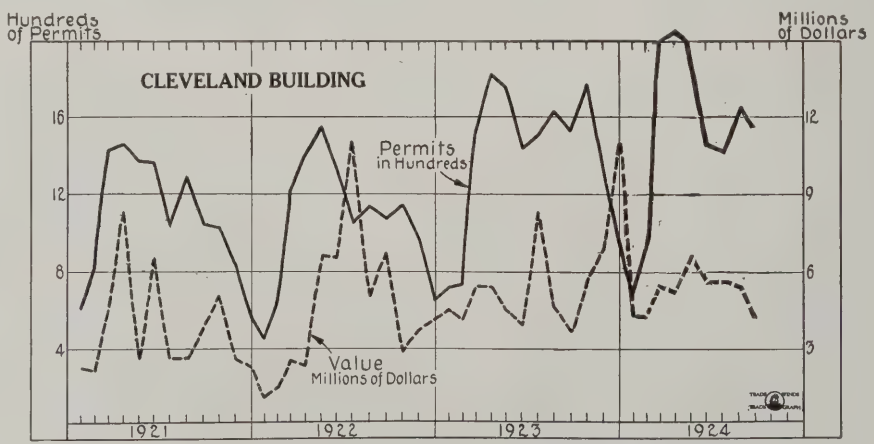
We are anticipating a mildly increasing business throughout the balance of this year, culminating in an active spring with little if any danger of inflation owing to the conservative operative methods now almost universally in force throughout Industry.



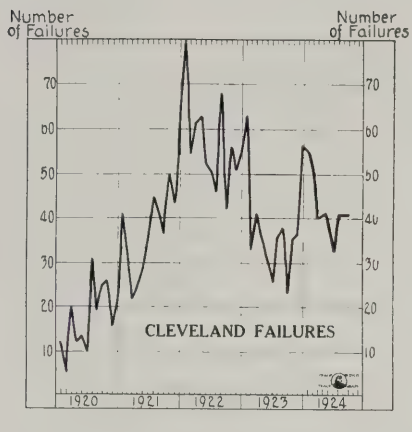
Sweeping advances for many products of the farm occurred in early October. Wheat, corn, oats, rye, hogs and cotton were all higher. Most sensational of all was the upward rush of wheat to well above $1.50 a bushel. Wheat's advance reflects Europe's scarcity of food together with the crop failure in Canada and other producing countries. As a result of higher prices, the index of farmer's purchasing power has leaped upward to the highest level since 1920



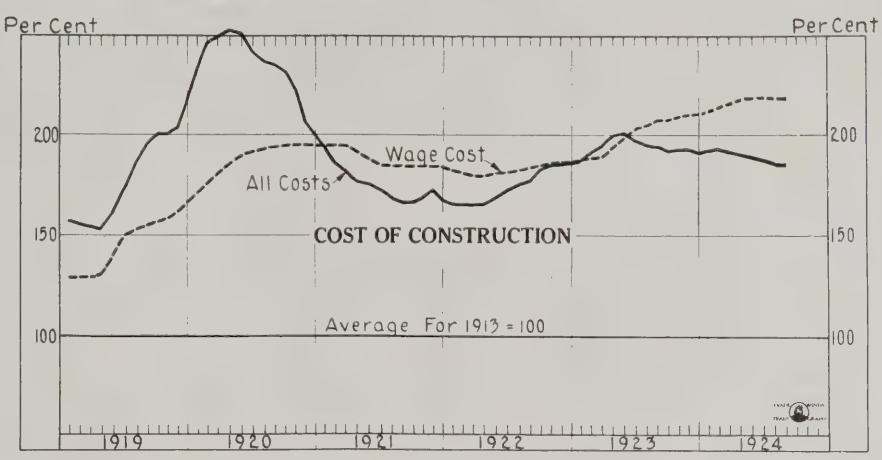
The current year has brought a steady decline in the cost of living in Cleveland and throughout the United States. The latest compilation by the department of labor statistics at Washington shows living costs in Cleveland at 75.9 per cent above the 1914 level. This compares with 79.6 per cent above in December, and 120 per cent above 1914 at the peak in 1920. Next to Detroit, where living costs are 82.4 per cent above 1914, it costs more to live in Cleveland than in any of the 19 important cities for which comparative data are collected



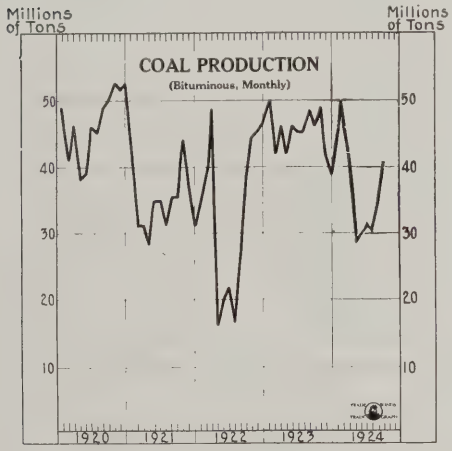
The volume of new construction in Cleveland has been maintaining a high level. The number of permits compares well with that of 1923. In September, there were 1554 permits with an estimated valuation of $4,800,000 against 1607 permits valued at $5,600,000 in August. In September, 1923, the number of permits was 1,580 with a valuation of $4,800,000



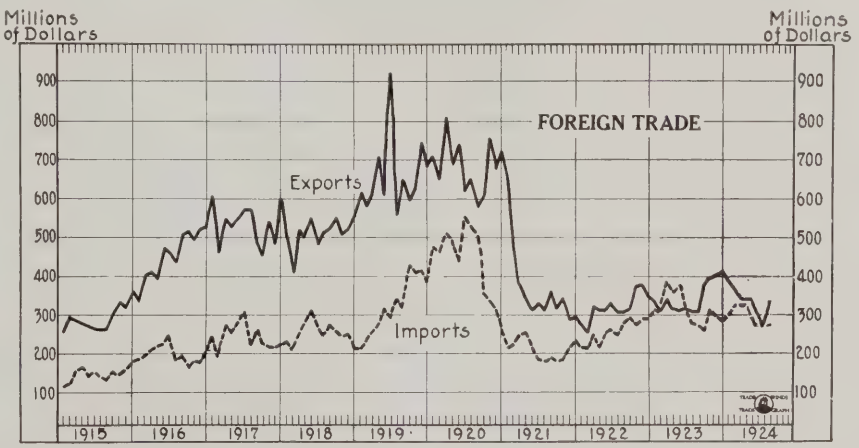
The number of Cleveland failures in 1924, as reported by Bradstreet's, has been running slightly higher than in 1923, but well below the average of 1921 and 1922. In September there were 41 failures against a like number in August. In September total assets were $1,037,516 and total liabilities were $1,408,935



Building costs are stabilizing. The index of construction costs, computed by the Federal Reserve of New York, after a recession of some months, held steady in August. The total of all costs was 87 per cent above the 1913 level, the same as in the preceding month. Wages are 115 per cent higher than they were just before the world war, having held that position for four months

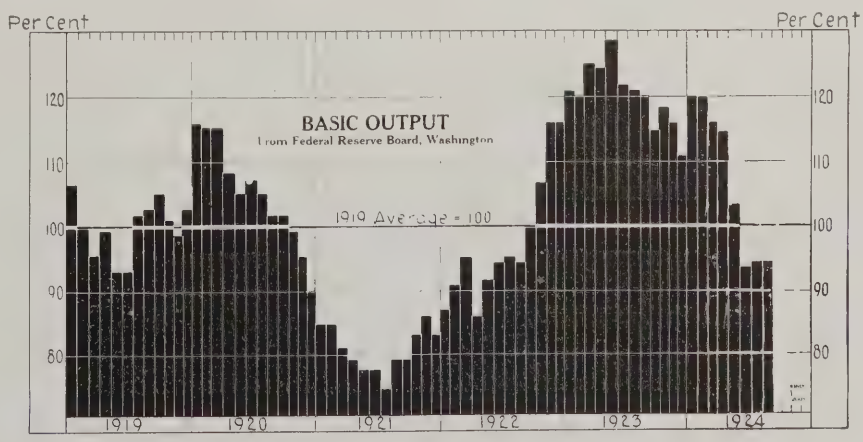


The production of bituminous coal has been making rapid strides toward a normal level. Early in October, the aggregate output for the year was 79,000,000 tons behind that for the same period of 1923. In September, production was 40,906,000 tons against 35,225,000 tons in August and 46,220,000 tons in September 1923



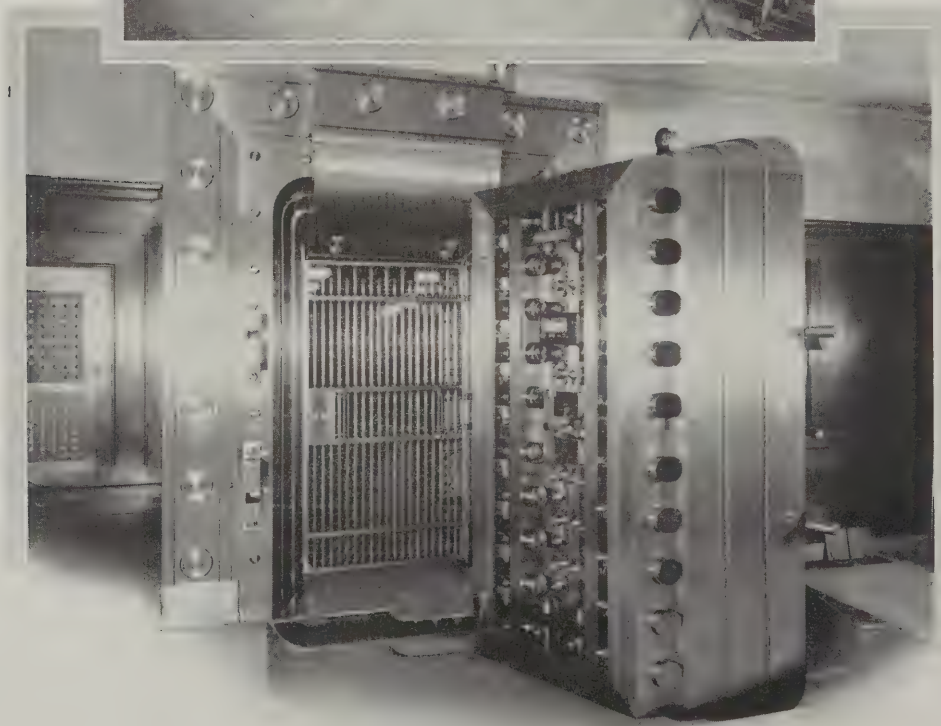
The trend of foreign trade, which brought an excess of $85,000 of imports over exports in July, was reversed in August. In that month exports of $331,000,000 exceeded imports by $61,000,000. The excess of exports for the first eight months of 1924 was $300,000,000. The most important development in the foreign trade situation has been the fact that the great influx of gold imports has ceased in recent weeks

The accompanying chart offers incontestable evidence that the summer's extensive decline of production has been checked. The index of output in basic industries, computed by the Federal Reserve Board of Washington, with allowance for seasonal variation, dropped 22 per cent during five months ended with June. July brought a slight increase and August's index was unchanged. Recent industrial reports indicate substantial gains in September



A glimpse in the Safe Deposit Department of The Union Trust Company, Cleveland, showing one of the largest and most modernly equipped departments in the country

The vault alone is of such dimensions that it comfortably held an entire section of the Convention of the United States Chamber of Commerce



America's Dependence or Independence of Europe

Continued from page 8

thing with him; you must buy his goods or his securities. And then you establish the bridge of inter-dependence, with economic traffic flowing both ways.

"You have the same situation with several other products of the soil — copper and gasoline. Actually over half of our copper production in 1923 was exported abroad (773 million pounds). Over one-tenth of our gasoline was also exported.

"The case of America's dependence upon the rest of the world, when it comes to manufactured goods is naturally not so decisive for our own skill and resources make us rather self sufficient. The imported commodities which show the greatest increase from 1913 to 1923 were rubber, newsprint and crude petroleum — only one of which is a manufactured article, and not far removed from the soil at that.

"The largest items of export of manufactured goods are food products — lard (93% increase in quantity over 1913); bacon and hams, (116% increase over 1913); flour, 3% increase. The total *value* of our exports showed an increase of 67% from 1913 to 1923, but the total *quantity* increased only 9%. In fact, our imports grew much faster than our exports in these 10 years, the quantity increasing 37%. Our exported surplus declined from 754 million in 1922 to 389 million in 1923, not because Europe didn't need it, so much as because it couldn't buy it!

"If you ask about financial dependence, it is quite true, of course, that we possess the world's largest reservoir of capital. We have four times the gold that either France or England possesses, and we need lean on no one. It is growing, too; — we had 3,078 million of dollars in gold in 1923 and at the end of March, 1924, had 3,130 million.

"So-called 'financial independence' is of course a relative matter at best. The more 'independent' we are, meaning the more surplus we have of capital and goods above our own need, the more we require the other countries for counter-balancing outlet. The economic machinery of the world pays scant attention to national boundaries; it follows more basic laws. We invested 997 million dollars abroad in 1922, a record total which we reduced to 410 million in 1923. This reduction was no doubt in considerable part responsible for the 11% decline in sterling and the even greater decline in francs, for whatever may be the ratio of our dependence or independence of the rest of the world, other countries are not in the same ratio independent of us. The degree of American investment in Europe is the factor which tilts the international scales rather decisively; and as our own ability to invest in Europe rests on selling our main exportable articles abroad, you can readily see how the whole international structure is interwoven and inter-dependent. When our investment abroad was high in 1923, foreign exchange rates rose and so did our exports. We were a creditor country in 1922 in spite of our huge investment abroad; in spite of a total trade balance adverse to this country of 488 million; in spite of 238 million surplus of gold imports, in spite of a long list of 'invisible' debts, such as tourist expenditures, remittances by immigrants, etc. This was because of the large unfunded debt of other countries to the United States, resulting from our huge war and after-war export surplusses.

"The net balance against us in 1923 was far less than in 1922 — only 152 million, and it becomes, therefore, a question whether our boasted independence must not be viewed very skeptically and relatively. National prosperity in America is so considerably predicated on farm prosperity that the undeniable need of foreign outlets for our farm goods makes it certain that we cannot in any true sense of the word, regard ourselves as independent."

In a recent Bulletin of the Association of National Advertisers appeared the following figures—striking antidotes for gloom, and a splendid tonic for any sales force:

Railroads issued bonds totaling $298,112,000 for new equipment alone in first six months of this year.

Five-and-ten-cent and chain store sales jumped 15 per cent over 1923.

Cotton crop of 13,000,000 bales insures increase of all kinds of business throughout South and all textile centers.

June issue of new securities $649,602,434, one of the largest on record, was quickly absorbed.

Bank clearings in single week show increase of $1,281,555,834.

New construction in July was $31,600,000 over July, 1923; $430,500,700 in contemplated new work was reported in single month of July.

Freight loadings largest of year — 945,731 cars during the week of August 2nd.

Life insurance sales break all records, $20,000,000 a day being spent for ordinary insurance alone.

Bank deposits 30 per cent larger than year ago. Billion gain in resources.

Cement shipments increase 1,600,000 barrels in month.

Lumber orders twenty-five per cent over last year.

Copper production 255,000,000 pounds more than last year.

Exports increase $184,672,000 in six-month period.

A Modern Titan

Continued from page 11

great care. Unusually high earnings per ton are not accepted as a basis for estimating future earnings.

Proposed financing must assure borrowing company of ample working capital

In addition to clearing up all funded debt, except that which is junior in lien to the first mortgage, the proceeds of the bonds must liquidate outstanding bank loans and all other debt above an established normal amount, and should provide working capital in an amount sufficient to produce at least two months coal running at full capacity.

Past Taxes

The tax returns of the corporation issuing the bonds should be examined carefully to make sure, so far as possible, that no additional claims for past Federal taxes are likely to be made against the company.

A significant and unique element of security in coal bonds through the foregoing safeguards, is that *debt reduction proceeds at a more rapid rate than coal depletion.* Therefore

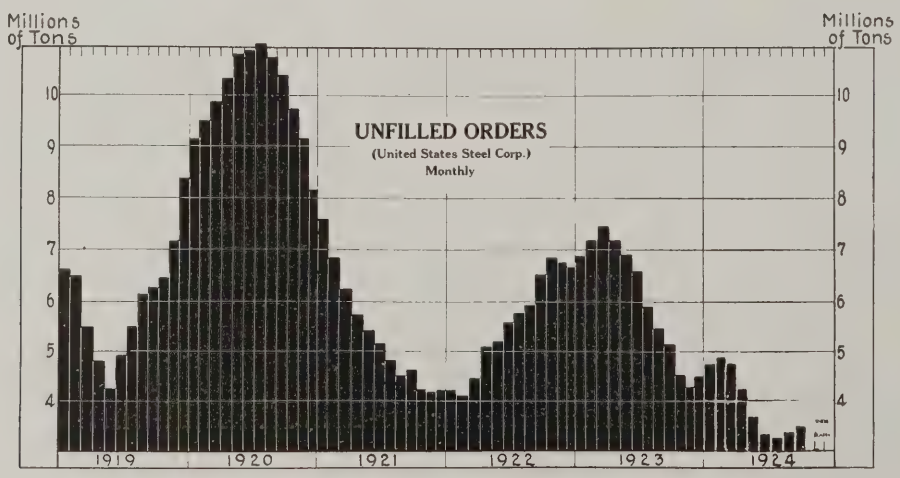
(1) The security in available coal per bond of outstanding debt progressively increases, and
(2) It is self-evident that the ratio of earnings for service of remaining debt tends to steadily increase.

The progressive increase in security for outstanding debt can be shown in a recent typical issue of first mortgage 6½% serial bonds. In the figures which follow we have assumed production to continue at the established annual average of 850,000 tons. The estimated available coal reserves are 38,280,000 tons, and the sinking fund to be applied to the reduction of outstanding bonds is ten cents per ton of mined coal.

Thus, when all the bonds are matured or paid through operation of the Sinking Fund, only 47% of the original recoverable coal will have been exhausted.

The example presented above is intended to show how the first mortgage bond issue will work out, assuming only the minimum average established production over a period of years which has been used as the basis of the issue.

Year			
1923	Coal available First Mortgage Bonds	38,280,000 tons $1,750,000	21,000 tons per $1,000 Bond
1928	Coal available Bonds outstanding	34,030,000 tons $1,325,000	25,830 tons per $1,000 Bond
1933	Coal available Bonds outstanding	29,780,000 tons $900,000	33,000 tons per $1,000 Bond
1938	Coal available Bonds outstanding	25,530,000 tons $475,000	53,724 tons per $1,000 Bond
1943	Coal available Bonds outstanding	21,280,000 tons $85,000	250,355 tons per $1,000 Bond
1944	Coal available Bonds outstanding	20,530,000 tons None	



Unfilled orders of the United States Steel Corp. as reported on Oct. 10, as of September 30, amounted to 3,473,780 tons. That was a gain of 184,000 tons over the total of one month before. It was the highest aggregate of bookings reported by the Corporation since May. The gain was the largest reported for any month since January. The increase in August was 102,000 tons and for five months previously the totals had been declining. The increase in bookings in September is proof that the industry is making steady progress despite the market unsettlements incident to the abandonment of Pittsburgh plus

For Her Sake–

That daughter of yours—
or perhaps your wife—

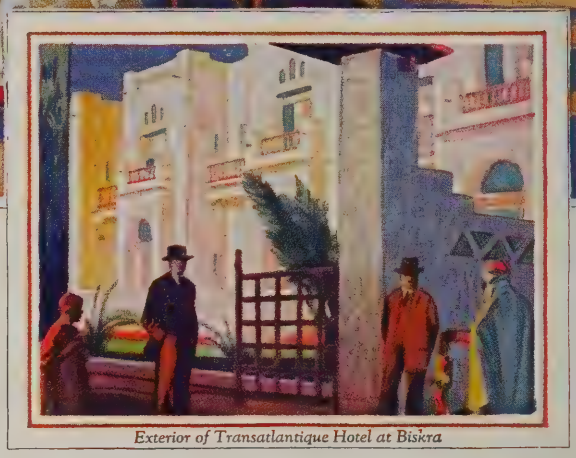
If you only realized what your banker sees every day, you would leave your desk and seriously discuss the application of some type of flexible trust to your estate and personal problems.

We can do little more than urge you to consult with one of the officers of our Trust Department in the hope of protecting those you love best and of easing your own mind not only in the dim Tomorrow but Today as well.

TRUST DEPARTMENT

The UNION TRUST *Co.*
CLEVELAND

Typical Moroccan Outdoor Market Scene



Exterior of Transatlantique Hotel at Biskra

Where Will You Be This Winter?

DO YOU find New York agreeable in a January drizzle or fog—Chicago braving a roaring lake wind? Or do you just "stick it out" till spring? . . . . Why not go where spring comes from?

PERFUME—drifts and waves of it—roses and drowsing orange trees. Light—blazing in the white squares, sifting through the trees. Music—the call of the muezzin, the little, thin, wild note of the flute. Mystery—the East, held in trust for us by France . . . . That's what you'll find this winter if you wish.

YOU'VE come from Algiers—Cannes-in-Africa—the gayest, most cosmopolitan city in the world. You're going to Laghouat, green island in the Sahara sands—to El-Goléah, where the sun, the moon and the stars wheel forever over a solitary well . . . . You'll see the Roman ruins, the place where Carthage stood, catacombs, the Arabian Nights come to life . . . . You're going back as far as Abraham—in a motor car!

ALL THIS only twenty-six hours from Europe, and Europe six days from America! You step on board a French Liner in New York and are under French Line management until you see the Statue of Liberty again. Steamships, hotels, motor cars to run you right out into the Sahara. All guaranteed by those red funnels with black tops that stamp the service sterling. . . . . In the meantime, drop a line for information. The booklets are a trip in themselves.

THE AKERS-FOLKMAN-LAWRENCE CO.
2010 EAST 9th STREET CLEVELAND, OHIO

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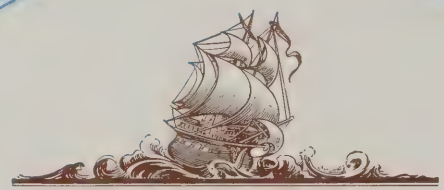
REMOTE STORAGE

Photo courtesy Cunard Line

TRADE WINDS

Published by THE UNION TRUST CO. *Cleveland, O.*
NOVEMBER 1924



Trade Winds

Published by THE UNION TRUST CO., *Cleveland, Ohio*

NOVEMBER 1924

Planning for Industrial Mobilization
By JOHN W. WEEKS
Secretary of War

Memories of Consolidations
By CHARLES R. FLINT

What Keeps the Right Boys Out of the Machine Shop?
By FRED H. COLVIN
Editor, American Machinist

Business Conditions
By C. L. BRADLEY
Vice President, The Union Trust Co.

English Business Conditions
By BARCLAY'S BANK LIMITED

Significant Changes in Distribution
By DR. PAUL H. NYSTROM

"Mine Host" Becomes a Merchant
By HARRY BOTSFORD

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TRADE WINDS
Published by
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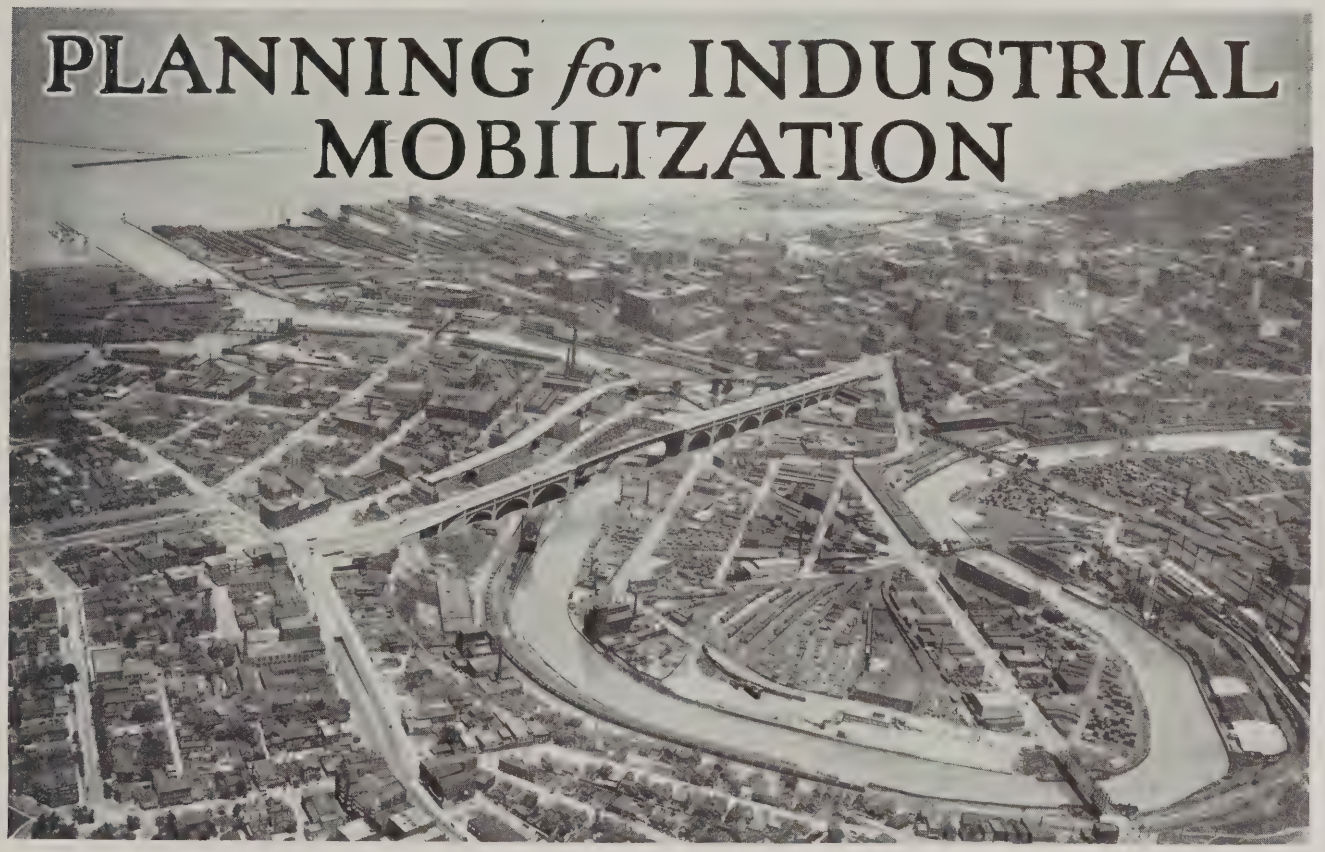
CLEVELAND

PLANNING *for* INDUSTRIAL MOBILIZATION



By Hon. John W. Weeks, *Secretary of War*

When a nation goes into a war of major proportions, the problem confronting its government is to secure such a balance in the distribution of its available resources of men and material that it may make itself the most formidable fighting machine possible. If this balance is not attained, if men are called to the colors in such numbers that they cannot be maintained in an efficient condition by that portion of the population left behind, or, on the other hand, if the number of fighting men is too small, even though they may be supplied with an abundance of equipment and supplies, then the country is not prosecuting the war at maximum efficiency.

The needs of the civilian population must receive consideration also. The ordinary existence of the country must be carried on in at least a fair measure. Under the worst conditions they must have some food, clothing and shelter and some of the ordinary pleasures of life must be left them or the war will be lost, not on the battle front, but by collapse of the industrial "Army back of the Army." The experience of the Southern Confederacy in the Civil War is an example of the extremes to which a people may be reduced in war before they will submit to being conquered, as well as an illustration of excellent judgment in the utilization of available resources.

The tenacious manner in which Richmond was held was due as much to the fact that the Tredegar Iron Works, the chief source of the fabrication of ordnance, was located there as to the fact that it was their seat of government. On the other side, the Union Government made its attack on economic quite as much as on military lines. The blockade of Southern ports, the cleavage of the confederacy through the Mississippi valley and again by Sherman's march to the sea were parts of the military plans of the Federal Armies.

It is therefore apparent that both military and economic factors must be considered and that Industrial Mobilization is but one part of a related whole — an essential part it

is true, but nevertheless one which must be viewed in proper perspective if our nation is to prosecute a future war in the most efficient manner.

After a careful review of the lessons of the World War and a consideration of the strategic, industrial and economic factors involved, the General Staff of the War Department has laid down a Basic Mobilization Plan which forms the foundation on which our plans for industrial preparedness are based. This plan is a program for the orderly mobilization of our man power in the national defense in time of emergency. It affords a definite basis on which the prospective requirements of our troops for equipment and supplies may be computed. Knowing the number of men to be brought to the colors, month by month, after the occurrence of an emergency; with a knowledge likewise of the organizations which will be formed with these men and their probable training periods and making necessary assumptions as to rates of fire, waste and consumption, and other factors affecting supply; the supply branches of the War Department have computed their requirements for finished articles. These requirements embrace fourteen thousand separate articles used by the army, and range from nails to railway guns, from shoes to airplanes. These articles contain several hundred thousand component parts.

There are seven of these supply branches, each of which is charged

Hon. John W. Weeks

with the procurement of a certain type of supplies. They are the Quartermaster Corps, the Medical Department, the Ordnance Department, the Corps of Engineers, the Signal Corps, the Air Service and the Chemical Warfare Service. The question of consolidating these branches into a single supply procuring service was considered after the recent war. In the testimony of General Dawes, who was the Chief Purchasing Agent of the American Expeditionary Forces in France, before the Senate Committee on Military Affairs in the Hearings on the Reorganization of the Army, the following appears:

> "Business principles operate in normal times and peace times and in normal business organizations, but there is a difference between an army in the field at war and a normal business organization. A business purchases goods in order to make profit. An army purchases them in order to use them to prevent its own annihilation. Profit is the motive of the business transaction, self-preservation the motive of the army transaction. Remember, I am talking of an army in the field, and, remember, also that the first purpose of your military system is to have your army operate successfully in the field. The laws of evolution have been at work longer in connection with war than any other form of collective human activities, for the war was the first collective human activity. Experience showed me that the claim of each service to the right of supply procurement for itself is necessary for the success of an army in the field, and that the ideal system of central control, while it must be absolute, must exercise its powers by co-ordinating the activities of the separate services instead of trying to substitute itself for them."

In redrafting the National Defense Act, Congress went very thoroughly into the whole question and decided that the responsibility

"The laws of evolution have been at work longer in connection with war than any other form of collective human activities, for war was the first collective human activity"

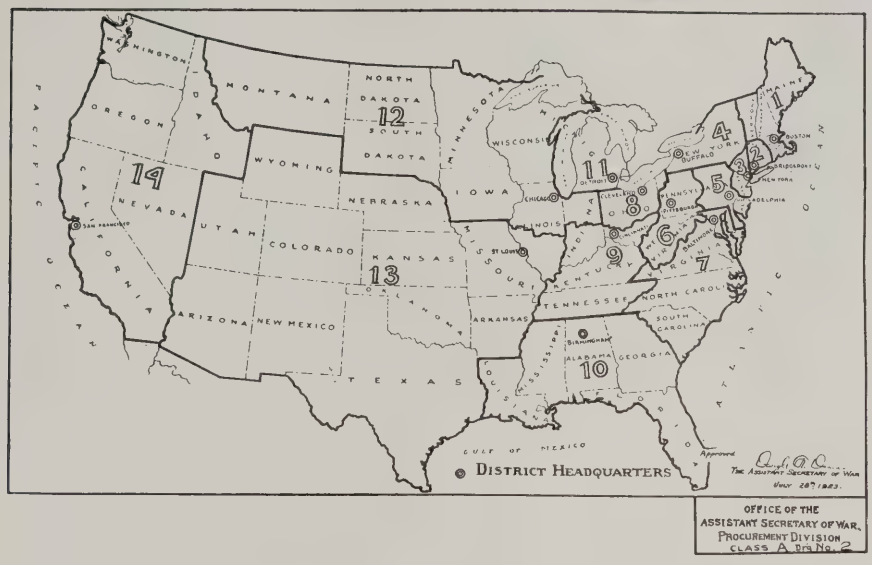


Fig. 1 — "To make it possible for the manufacturer to get information nearer home and from an official whose only duty is to render him service"

for procurement should rest directly with the chiefs of the supply branches and provided for their proper co-ordination and supervision in peace and in war by creating the office of the Assistant Secretary of War as it now exists.

In accordance with the provisions of the law, the Assistant Secretary has been charged with the supervision of the procurement of all military supplies and with planning for the assurance of adequate provisions for the mobilization of material and industrial organizations essential to war time needs. Plans are being developed under a policy of decentralization which will prevent the many troubles which arose during the World War due to over-centralization in Washington of activities which could better have been done elsewhere. Instead of it being necessary for a manufacturer to make a trip to Washington and here wait until it becomes possible for him to see a busy official in order to get necessary information about an article he is making for the Government, this will make it possible for him to get information nearer home and from an official whose only duty is to render him service. For this purpose the territory of the United States has been divided along industrial lines into fourteen procurement districts, with headquarters of each district located in a leading industrial city. These districts are shown on the outline map, Figure 1. The headquarters are:

Boston	Cleveland
Bridgeport	Cincinnati
New York	Birmingham
Buffalo	Detroit
Philadelphia	Chicago
Baltimore	St. Louis
Pittsburgh	San Francisco

At present, the supply branches are permitted to group two or more of these districts into larger units for planning purposes, but, in time of war, each supply branch will maintain a responsible agent in each of the cities.

All questions arising in regard to contracts and manufacturing problems may be taken up with the proper district office and settled expeditiously. Likewise questions arising between two or more supply branches in a district may, in the greater number of cases, be settled by the local representatives and the delay incidental to referring them to Washington be avoided.

THE peace-time organization of the industrial districts is shown in the table, Figure 2 (pg. 4). It will be noted, for example, that Cleveland contains the District Office of but one supply branch, the Ordnance Department, while the planning headquarters of the Quartermaster Corps is at the established depot at Jeffersonville, Ind., and the Air Service use Dayton, Ohio, as their planning headquarters. In time of war, there would be a representative of each supply branch located in Cleveland.

The supply branches, having computed their requirements, apportion them to these district offices for production at specified rates and with specified deliveries.

It is the duty of the district offices to survey the firms with which they

"There is a difference between an army in the field at war and a normal business organization — an army purchases to prevent its own annihilation. Profit does not enter into the consideration"

WAR DEPARTMENT PROCUREMENT DISTRICTS
CHART SHOWING HEADQUARTERS OF THE VARIOUS SUPPLY BRANCHES

W.D. DISTRICT NO.	WAR DEPARTMENT DISTRICT HEADQUARTERS	QUARTERMASTER CORPS	ORDNANCE DEPARTMENT	AIR SERVICE	CORPS OF ENGINEERS	MEDICAL DEPARTMENT	SIGNAL CORPS	CHEMICAL WARFARE SERVICE
1	Boston	◉	◉	○	○	◉	○	◉
2	Bridgeport	○	◉	○	○	○	○	○
3	New York	◉	◉	◉	◉	◉	◉	◉
4	Buffalo	○	◉	◉	◉	○	○	○
5	Philadelphia	◉	◉	○	◉	◉	○	○
6	Pittsburgh	○	◉	○	○	○	○	◉
7	Baltimore	◉	◉	○	◉	○	○	○
8	Cleveland	○	◉	Dayton**	○	○	○	○
9	Cincinnati	◉ Jeffersonville**	◉	○	○	○	○	○
10	Birmingham	◉ New Orleans**	◉	○	◉	Atlanta**	○	○
11	Detroit	○	◉	◉	○	○	○	○
12	Chicago	◉	◉	◉	◉	◉	◉	◉
13	St. Louis	◉	◉	○	○	◉	○	○
14	San Francisco	◉	◉	◉	◉	◉	◉	◉
Total Number of Districts	14	9	14	6	6	7	5	5

KEY:
◉ W.D. Districts included in Supply Branch Districts
Headquarters of Supply Branch District →
○ W.D. Districts included in Supply Branch Districts

**Peace-time organization

propose to place orders, to make sure that there is a reasonable relation between orders given and the capacity of the plant to produce the material in question. That there may be no confusion and needless demands upon the management of industrial plants, the representative of a supply branch is not permitted to approach a plant with reference to placing a war order until the plant has been allocated to the supply branch in question by the Office of the Assistant Secretary of War. This insures that the plant management will have presented to it, at one time, all the demands which the War Department expects to make upon it in time of war, and prevents the confusion which was so frequent during the World War, due to the unco-ordinated activities of the various supply branches.

LET us look, for a moment, at the problem of war procurement from the standpoint of the manufacturer who has received a war order and who is anxious to do his part as a patriotic citizen towards perfecting our plans for national defense. Let us see how he fits into the scheme of organization outlined above, what there is further for the government to do in the premises and what the manufacturer himself can contribute which will be of value in assuring the orderly mobilization of industry in time of need. To be entirely definite let us consider a manufacturer of shoes in Chicago.

Obviously, he is best equipped to make shoes and the Army needs shoes in large quantities — a soldier wears out shoes about four times faster than the same man did as a civilian. We will assume that this manufacturer has received a war order for shoes. He has received this order from the Chicago District Quartermaster office and he looks to this office for all information and decisions relating to the order. This in itself is a great improvement over the old condition of affairs which required him to look to Washington on such matters.

Our manufacturer wants to know exactly what he is to make. While his order is for shoes, these will not be identical with the articles that he has been making for the civilian market. They will be built for rugged outdoor wear and hard service in the field — not at all for dress. This means that there must be specifications available, not only for shoes but also for every element that enters into their fabrication and these specifications must be extended to cover every one of the thousands of articles issued to troops. In many cases, detail and assembly drawings will also be required. The work of preparing the necessary drawings has been prosecuted vigorously, since the World War, and they are being standardized and made to conform to the best commercial practice, as far as practicable.

Our manufacturer will want to know how many shoes he is to make and what rates of delivery are required. This information he will receive with his war order, which will be given him only after a survey of his plant and an agreement with him that the order is one that he can reasonably undertake and of which the government can reasonably expect performance in every respect.

He will want to be assured that his labor will not be unduly disturbed by the mobilization of the Army or by runaway costs of living. These are problems which will require agencies having authority similar to that exercised by the Price Control Commission and the Taft-Walsh Board in the World War. The War Department, however, can be very helpful in some of these problems. Particular attention will be paid to avoiding any action which will tend to create incentives to inefficiency on the part of management or labor, such as the old "cost-plus" contracts.

The manufacturer will want to be assured freedom from power and transportation difficulties. In the placing of war orders, care is being taken to avoid concentrating them unduly in any locality and this will go far toward preventing these difficulties. Furthermore, general studies of these problems are being made

Please continue on page 22

Memories of a Consolidation Formed on a Pullman Car Near Cleveland

By Charles R. Flint

Nothing succeeds like success, and the notable success of my U. S. Rubber consolidation induced August Belmont, who was the paternal banker of the New York Belting & Packing Company, to ask me to endeavor to bring about a consolidation of the mechanical rubber goods industry. The New York Belting & Packing Company, he believed, should be a party, and wanted me to go West to see the men who controlled the two most important companies outside of the New York Belting & Packing Company in that line.

I felt that, before going West, I should have some expression of confidence on the part of Belmont and the New York Belting & Packing Company people, so I told Belmont that I would take up the matter, provided the New York Belting & Packing Company gave me full power-of-attorney. He told me that it would cause him much inconvenience to arrange it, and I informed him that I would not go West unless that power was given to me. So he asked the firm of Strong & Cadwalder to draw the necessary power-of-attorney, and after a meeting held by the directors of the New York Belting & Packing Company, he handed me this document, taking pains to tell me how much trouble I had put him to. As soon as I received it, I handed it back.

"Mr. Belmont," I said, "*actual possession of a full power-of-attorney would embarrass me, because in order to bring about a consolidation, it will be necessary for me to act as a disinterested intermediary.* I appreciate and desire the confidence it bespeaks, but I will not use it."

Belmont at first was displeased at my attitude, until I explained to him that my success depended upon my being a neutral; that the psychology of forming a consolidation was delicate, and that while I wanted to be in a strong position, I wished to be a neutral negotiator.

I took a train for Cleveland, being accompanied by an accountant from Belmont's office, a brother of one of his partners and a member of the famous law firm of Evarts, Southmayde & Choate. After a night's conference on the train, we spent all of the next day examining the Cleveland Rubber Company's factory, and going into their accounts.

Ostensibly in order to sleep, after our night of travel and a day of intense work, but actually to continue our conference, we took the train for Chicago. Then I spent an entire day in the Chicago Rubber Works examining the factory and its accounts. Following this, I arranged for all the parties in interest to take separate rooms in the Auditorium Annex (Congress Hotel), and then I commenced the work of bringing about the consolidation.

I went from one suite of rooms to the other, but being exhausted at 2 o'clock in the morning, I repaired to my room to get some sleep and continued the negotiations the next day. But I made up my mind that I would not succeed in "belling the cat" by continuing negotiations at the Auditorium Annex, so I secured the better part of a Pullman car and transferred negotiations from the Auditorium Annex to the Pullman.

This decision was based on a feeling that it was important to move, to have some sense of motion in the proceedings, for they were dragging dangerously, and that possibly my people would be more likely to come to a decision and agreement rolling along at high speed on a railway track with a getting-off station ahead of them, than in the slumberous quiet of a hotel.

I had in mind that McClymons, the most important man, was to get off at Cleveland. McClymons showed that he was impressed with the advantages of consolidation, but, being a Scotchman, thought he could strike for an additional $100,000 cash or its equivalent. Feeling that the other parties would yield, and that I would favor his cause, being so very anxious to put through the consolidation, he held out, and I was still as far from bringing about the consolidation as ever when we were within one hour of Cleveland.

I made up my mind that it was absolutely necessary to bring the negotiations to a close. There was only one way I reasoned, and that was to give McClymons what the butter man in the play of "Our Boys" called his "Ultipomatum."

Having in mind the many cases in which Lincoln used humor as an emolient, I told McClymons that he reminded me of that Scotchman, who was attacked by a foot-pad on London bridge. The hardy Scot was getting the advantage over the footpad, when a second footpad came along. The Scot was getting

Chas. R. Flint

"Who's Who" lists Chas. R. Flint as a "merchant banker."

Entered employ of William R. Grace in 1869; joined in establishing the firms of Gilchrist, Flint & Co., ship chandlers, 1871; W. R. Grace & Co., 1872, and Grace Brothers & Co., of Peru, 1876, and in those connections gained a prominent place in the trade of the United States with Chile, Peru, Brazil and all of Latin America. Was Chilean Consul in New York City 1877-1879 and after that Consul General of Costa Rica and Nicaragua to the United States.

In 1885 became a member of the firm of Flint & Co., merchants and ship owners, which under the firm name of Chapman & Flint had been established by his father and uncle in 1837.

Was U. S. delegate to the International American Conference in Washington, 1889-1890, and formulated reports and resolutions providing for the establishment of an International American Bank and the Bureau of American Republics, and negotiated the first United States reciprocity treaty, viz.: with Brazil.

As agent for President Peixotto, 1893, purchased and fitted out the Dynamite fleet which prevented the secession of the Northern provinces of Brazil and the overthrow of the Brazilian Republic by the monarchists.

Purchased the cruiser Esmeralda from Chile and delivered it to Japan during the China-Japan War; rendered valuable service to the U. S. Government during the war with Spain; during the Russo-Japanese War received the letters of credit of the Rothschilds for $30,000,000 for account of the Russian Government, visited Turkey and conducted negotiations with other governments on behalf of Russia.

During the past eighteen years his chief work has been the organizing of industrial consolidations; consolidated the street railways of Syracuse, N. Y., 1897, and organized (1892-1910) the American Chicle Co., Sloss-Sheffield Iron & Steel Co., U. S. Bobbin & Shuttle Co., Computing Scale Co., International Time Recording Co., Rubber Goods Manufacturing Co., American Caramel Co., American-Hawaiian Steamship Co., National Starch Co., U. S. Rubber Co., American Woolen Co., Manaos Tramway Co., Sen-Sen Chiclet Co., and others; and during 1911 the Autosales Gum & Chocolate Co., and the Computing-Tabulating-Recording Co.

Author of "Memories of an Active Life."

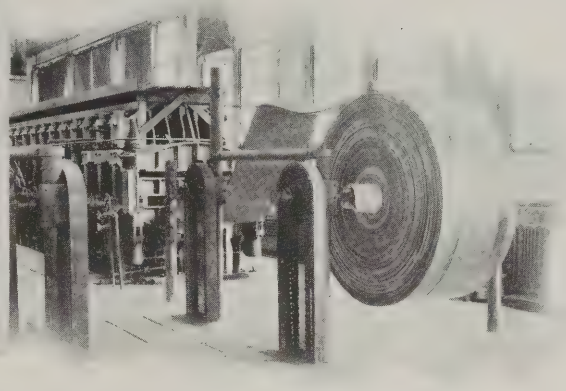
"Success in forming a consolidation depends upon the neutrality of the consolidator." Photographs of rubber plantations in wild and cultivated state, courtesy of Goodyear Tire & Rubber Company

the better even of the two, when a third footpad came, and the three of them after a tussle succeeded, in downing the hardy Scot. As the three footpads walked away, all battered, bruised and torn, one of them held out his hand with the booty — "a sixpence" — and remarked: "He would've killed us if it had been a shilling."

I then offered to close the consolidation based upon giving McClymons $50,000. Within twenty minutes of when the train was to arrive at Cleveland, where McClymons had to decide, he accepted. I had a lawyer on the train with me, and an agreement was drawn that could have been written on a shirt cuff. The consolidation agreements were concluded without the certification of public accountants and without the payment of any cash — certainly a rather quick-fire consolidation worthy of the fast work of more modern days! The Mechanical Rubber Company was organized and was successful.

I then conceived the idea of enlarging the consolidation of the mechanical rubber industries and including bicycle tires. I started negotiations to bring that consolidation about, but parties who were more alert than myself, saw the opportunity and they had connections whereby they were able to open negotiations with all the parties necessary to bring about a consolidation. They felt satisfied that by going to London and taking Mr. Morgan of Morgan & Wright over there, they would be able to complete the negotiations with Morgan as principle party.

"The consolidation agreement which formed the Mechanical Rubber Company could have been written on a shirt cuff" — Photos courtesy Goodyear Tire & Rubber Co., showing plantation "operators" home and natives sorting rubber in the "raw"



Photos such as these give but a trifling indication of the immensity of the rubber industry. Photos courtesy of Goodyear Tire & Rubber Company

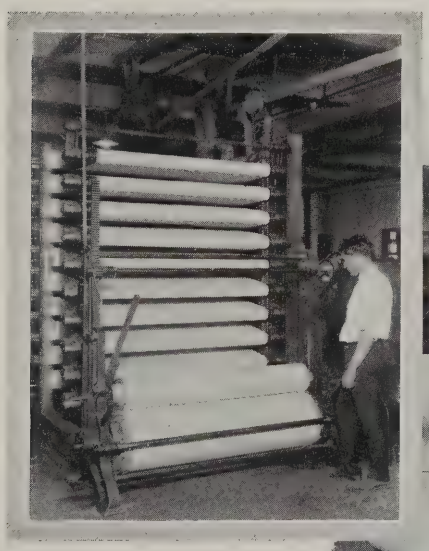
Here enters into the story one of the most versatile and accomplished men who have been closely associated with me in my life — William M. Ivins. This judgment of the man is far from being only my own, but is confirmed by his record.

Ivins was one of the ablest lawyers in New York. He became City Chamberlain, and was one of the leaders who brought about the adoption of the secret ballot, which, it is common political opinion, represents a great milestone in the country's history. Governor Charles T. Hughes appointed him Chairman of a charter commission, and he was most active in drawing a proposed new charter for Greater New York — which a prominent politician told me was "the best charter that could have been drawn for the people, but the worst for the politicians, and, therefore, would never be adopted."

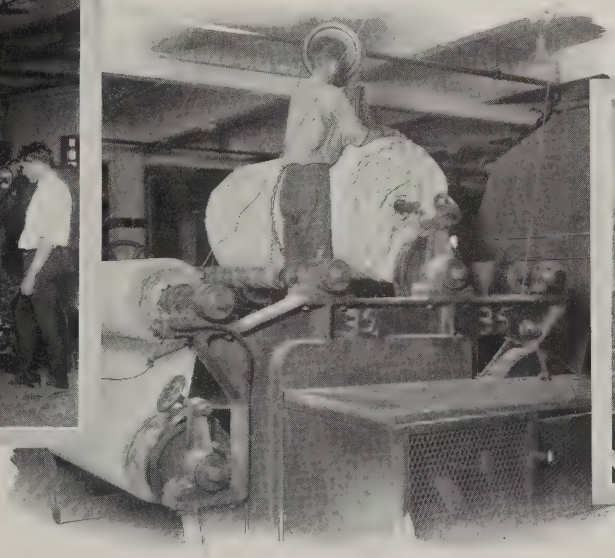
At the request of Governor Hughes, Ivins drew the laws under which the public utilities commissions have been appointed. On behalf of the City, he acted as counsel in the investigations of Tammany Hall; and he also ran for Mayor of New York City.

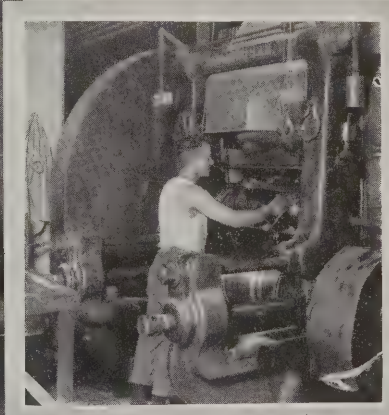
It will thus be seen that I am not over-rating this brilliant man, who is, of course, remembered by the older generation, but perhaps not by the younger. I told William M. Ivins that I was very much disappointed in being left out of this Morgan & Wright rubber opportunity, and that I felt that, inasmuch as I thought I had the initial idea of the consolidation, I should have been considered in this movement to bring about that consolidation.

Ivins said that he felt that I hadn't been well treated in the matter, and that he would get on the steamer without any expense to me of any kind and go to London *and block the negotiations!* Ivins had a large acquaintance in London, but he was not able to make any sub-

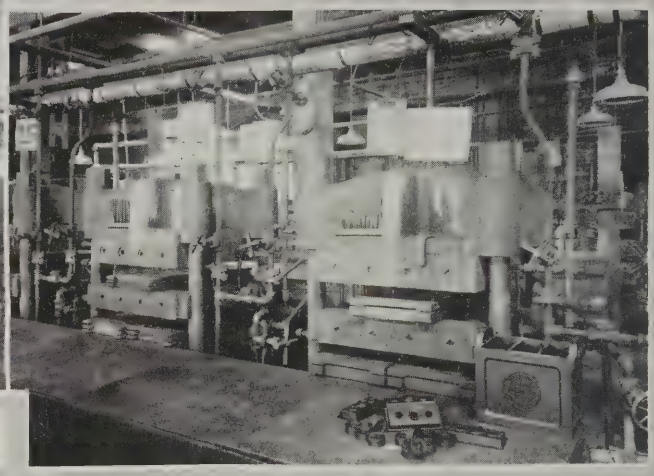


Over 30,000 articles made from rubber serve us





In 23 years, the rubber industry has expanded almost 20 times



Another phase of the rubber industry, showing some manufacturing processes at the Aetna Rubber Company, large builders of battery boxes, moulded rubber goods, surgeons' gloves and similar products — an example of a huge rubber market entirely aside from the rubber tire market

stantial progress in preventing the consummation of the deal. He was quite depressed as a result of his attempt. He was in the habit of reading at night at his hotel, and while reading he heard voices in the adjoining room. He told me that he reached over and got a letter pad and wrote me a letter, which I still have. The letter reads: "The Lord hath delivered the enemy into our hands." Morgan, of Morgan & Wright, was deaf and his lawyer and banker and someone else were in the next room, bellowing forth their secrets quite unaware that a brilliant New York lawyer, in London for the express purpose of learning those secrets and forestalling action, was in the next room hearing them more accurately than deaf Mr. Morgan himself — and, what is more, with a secretary taking it all down in shorthand!

It may be imagined that Mr. Ivins knew what to do with this information! The final result was that Morgan, the banker, the lawyer, and the merchant took the steamer back to New York defeated. On Morgan's arrival, he was very much disgusted with this failure to bring about results in London and was disposed to trade with me. He told me that he wanted to get out of business, buy a farm and write poetry and that he was willing to sell his property for one-half of what it was worth.

Morgan was one of the wittiest correspondents that I have ever known, and some of his letters compare favorably with anything written by Mark Twain. I still retain some examples of them. But his book of poetry reminded me of the case of one of my wards, who wrote a novel entitled: "Silver Threads Among the Gold." A publisher told my ward that there was only one way in which she could get all the profits of the book and that was to pay the cost of publication.

The idea appealed to her, and the novel, or to be more exact, a number of tons of novel, were duly published and paid for. The selling campaign resulted in the sale of about 500 pounds out of the many tons. She came to me for advice; it was pretty hard for her to have lost her money, but she wanted still more to have those novels read.

My literary friends, Irvin Cobb and "Bob" Davis, were consulted as to what methods should be used to comply with the wishes as expressed by my ward, but they gave it as their professional opinion that her wishes could not be accomplished. Other of my literary friends also fully coincided.

Deliberating on the problem, however, I found a way of bringing about her dearest wish. The American Seamen's Society put on board all of the many vessels making long voyages a little library shelf about two feet long for the benefit of the officers and sailors. I arranged to put "Silver Threads Among the Gold" on each one of those bookshelves so that the men on board the vessels had to read "Silver Threads Among the Gold" or else spend a large part of their voyage bookless!

I occupied myself at once in making Mr. Morgan's wish possible. I arranged with Barring, Magoun & Company to become the bankers of the consolidation known as the

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What Keeps the Right Boys Out of the Machine Shop?

By Fred H. Colvin
Editor, American Machinist

From the various branches of the machine building industry comes the general complaint that good men are hard to get, that boys of the right sort are not coming into the shop. There are a few exceptions of course — a few shops which have established splendid reputations with their training schools for boys, are keeping their classes full and have a waiting list. But where we find one case of this kind, there are a hundred shops looking for desirable material for the mechanics of future generations.

Ask a dozen different shop executives as to the reason and you will probably get as many different answers. Some will be pessimistic, others discouraged and a few hopeful but not confident. The reasons given vary from pure cussedness on the part of the rising generation, to the inability to pay wages that compete with the building and other trades. The latter reason probably has more justification than the former. For if any of us will look back to our own boyhood — and be honest in so doing — we will probably admit that it was seldom a high and mighty impulse which urged us into the machine field, but rather the desire — and perhaps the necessity — for "a job."

Of course, most of us had a hankering after the machine shop, for most boys like to handle machinery and tinker with it. But today the average boy's desire to fuss around machinery can probably be satisfied in keeping tabs on dad's automobile. We of the older generation had no such outlet for our budding mechanical genius. It is probably true that the automobile has done more to compel a wider knowledge of mechanics, some of it superficial to be sure, than ever before.

What Keeps Boys Out of the Shop

There is another unfortunate — but understandable — reason which keeps many desirable boys out of the machine shop. This may perhaps be called the "social reason," and frequently the boy's mother has much to do with it. Dirty hands and dirty clothes do not appeal to her. Perhaps she has had to contend with them all her life in the person of the boy's father and her own. In most of the building trades it is possible to keep hands and clothes much more presentable. Then, too, to the average mother, machinery spells danger and she prefers to have her boy go into some cleaner and less hazardous occupation.

Father, too, even though he be a machinist himself, very frequently rails against the whole industry and wants his boy to have none of it. To be sure he gets much bigger pay and works shorter hours than formerly, but he senses an undesirable something which has changed his attitude toward his trade. "It isn't what it used to be" in more ways than one, although he may not be able to tell just what the difference really is.

This brings us to another reason and one which I believe, is more potent than many realize — the the extreme specialization of and subdivision in the machine building industry.

Opinion is, of course, divided on this point and some of my best friends whose opinions are well worth while, do not agree with me. There are executives who contend that shop men prefer to be cogs in the industrial machine and shirk any responsibility — that they prefer to do one operation day after day and have no interest beyond quitting time and pay day. They cite instances where men have quit a job rather than change to some other kind of work or make of machine. But this frequently means that they have been merely appendages to a machine for so long that their minds are dulled and they fear to change. I have met managers who were in almost the same frame of mind.

Real Mechanics Needed as Well as Operators

If this is the only kind of men we have in our shops, we are surely in grave danger for the future of the industry. Is this the kind

An Appreciation of the Machine Tool Industry

By John C. Spence
Director of Norton Company
Worcester, Mass.

I believe that a little of the old spirit which prevailed between the master workman and the apprentice would help to attract young men into the machine tool business as much as even an increase in wages. Young men are naturally hero worshippers, and from experience I know that the apprentice mechanic has as much admiration and loyalty for the man who exerts himself to give the youngster a training as did ever the pupils of a great painter or sculptor.

I am just heathen enough to believe that a good mechanic creates works of art that are the equal, from the standpoint of those who know, of any of the so-called masterpieces. A great mass of people have no idea that their very existence, to say nothing of their comforts and pleasures, depends upon the machine tool industry. Because so few realize this, and because the mechanic is doing things rather than writing about them, this vital fact has been carefully concealed from the world.

"I am just heathen enough to believe that a good mechanic creates works of art that are the equal of any of the so-called masterpieces"

of men from which we can build up our shop executives or keep the machine building industry where it belongs? Are examples like this apt to attract any live, ambitious boy into the machine building industry?

None can gainsay the great achievements which have been made in reducing the cost of machine work. Mass production has made possible the use of highly specialized machines and methods which have brought the actual labor cost of producing machinery to an astonishingly low figure. If however, the final result has been to divert intelligent boys into other industries, the net advantages may not be so great as we think.

It is doubtless true that we shall have large numbers of boys and men, who because of sub-normal mentality — or of necessity — will be content to perform single operations almost indefinitely. But the industry will be in a bad way when these are the only kind of recruits which can be attracted to it.

The machine industry needs bright young men as never before. And every young man who fills this description has constructive visions of accomplishment. A future of blindly following an instruction card, of using tools and fixtures which others have designed to be "fool proof," cannot have a very strong appeal.

Some of us, who have the future of the machine industry very keenly at heart, are wondering if we have not *over* specialized along some lines. Perhaps it would be better to say that we have not differentiated sufficiently between the boy who is content — or at least willing to follow — at a price, and the boy who will never be really happy unless he is doing constructive work.

Why the Boy Doesn't Start for the Top

This will of course be answered by the old bromide, "there is plenty of room at the top." But even if this be true, it will not help the industry unless we can induce the right kind of boys to make a start, at the bottom or elsewhere. As long as other industries or interests beckon with a stronger call, we are not going to get as many of *the right kind of boys* as the industry needs.

I do not believe that it is solely a matter of compensation, although this naturally plays a part. But the palpable injustice of some of our wage methods undoubtedly hurt fully as much as the actual difference in money received.

Take the very common case of the young man who has spent four good years in learning his trade, so that he is capable of handling any machine in the shop creditably. His knowledge enables him to not only run any machine but to set it up for any operator, to discover the cause of any breakdown or stoppage, and to get the machine started to earning profits in the minimum time. Imagine his feelings when a man who has never seen such a machine — until he started to run it — can earn more than he because of the piece work rate. Is the young man likely to be over enthusiastic about an industry where such discrimination is all too common? Is he to be censured because he does not desire the responsibility of foremanship which is sometimes paid less than some piece-worker in the same shop? It is the feeling of injustice in such cases which really hurts as much as the actual difference in compensation.

Industry Needs Mechanics as well as Operators

There are I believe, several things necessary to effectually remedy the present situation. First perhaps, is a

realization — on the part of management — of the necessity of constantly recruiting a certain percentage of boys with the ability and the desire to become full-fledged mechanics. For in many cases the men at the head of our large manufacturing plants are chosen for their financial rather than their mechanical ability. And in too many cases they have been led to believe that modern industry needs nothing but up-to-date machinery and automatons in the guise of men. It is partly the results of this policy which we are now facing.

When management realizes that real mechanics are necessary, it will set about securing them and holding them, by studying the whole situation carefully. And one of the phases which the psychologist will find, is that the pride of craftsmanship must be stimulated by making it something to be proud of — by some tangible recognition of both ability and dependability. For the latter is a quality which is seldom sufficiently appreciated.

Some who have studied the problem believe that the solution must start in the public schools — that here is the place to offset some of the present day prejudices against the machine shop. Instead of glorifying war and warriors to the exclusion of other and more useful occupations and professions, the benefits due to the development and uses of machinery could be stressed and made of vital interest. Everything in the schoolroom, everything in modern civilization, depends on machinery of some kind. The automobile which is now an adjunct of almost every family, requires the skill of high grade mechanics. The radio, the airplane, agricultural machinery, all are here because of *the mechanical ability* of men in the machine shops.

The Romance in Machinery

There is a romance in machinery as in astronomy and other sciences. The ability to take a piece of steel and shape it into an intricate part for an automobile, to have every part true and accurate within a tenth of a thousandth of an inch if need be, is a worthy goal for any ambitious youngster. Just as the sculptor chips away the unnecessary marble, so does the mechanic drill, turn, bore, mill, plane and grind until the piece is right for its task and ably to withstand the stresses which will be imposed upon it. There is even a touch of alchemy in the modern heat treating of steel for this work. Heating to a certain temperature, quenching, reheating and again cooling in definite, predetermined ways, change the structure and strength until it is almost a different metal.

Couple the ability to do work of this kind with public recognition — instead of classing all mechanical workers as "shop hands" with its implication of inferiority—and more boys will be attracted to it. Recognition of ability, as in the days of the guilds, would remove much of the stigma which now prevents boys from seeking the shop. Just how far the unions have contributed to the present situation is not easy to determine. But it is not going to help matters to fold our hands on that account. It may be that we can show them the weak spots in their policies by working out new and equitable plans.

There is probably no panacea, but the ideas which are being worked out by a few concerns may be helpful in making other and better plans. One large automobile concern finds it helpful to have the executives, clear up to the top, take a personal interest in apprentice systems and the apprentices themselves. They are not coddled but cultivated. Their capabilities are studied and a personal interest is taken in their welfare. The department foremen co-operate with the instructor and the results are very gratifying. In cases of necessity almost any boy can, with a little training, take his place in any department and make good. If the assembly gang is shy a man or two, the boys can fill in and keep production going. At the same time they are learning the various kinds of work and are not exploited by being kept in any department because they have made good there. They also learn how much dependability means to the output of any concern.

"The pride of craftsmanship must be stimulated by making it something to be proud of"

Putting Master Workmen on a Salary Basis

Another shop puts its all-around mechanics on a weekly salary basis, which includes a week's vacation with pay and pay for holiday — the same as the men in the office. This recognition of the value of ability goes a long way toward instilling the pride of craftsmanship which we so sadly need. It also makes for loyalty and dependability. And dependability is a quality which is of great value in any plant.

Before a manager can adopt this policy he must get out of the habit of considering as "non-productive" all labor which does not actually turn out product. He must realize that the man who can discover the cause of a breakdown or stoppage, and remedy it, is really a great pro-

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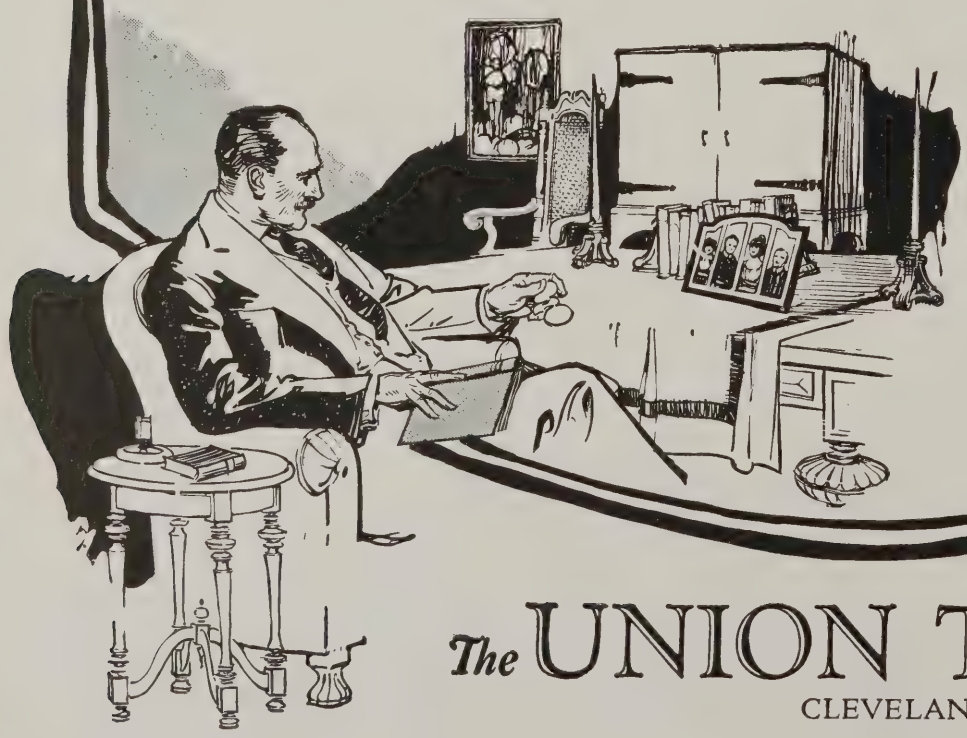

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CLEVELAND

Business Conditions

By C. L. Bradley
Vice President, The Union Trust Co.

"Election uncertainty" has been a "mental hazard" in the pathway of business for several weeks past. This removed, we can turn our attention toward the future with a certain degree of confidence and security.

As we pointed out last month, business — even prior to election — showed certain unquestioned signs of substantial improvement. While these indications individually were of little moment, their number was sufficient to indicate a healthy tone prevailing throughout all industry.

Indications since election day, almost without exception, are encouraging — but two or three facts should be borne in mind considering the period and extent of the anticipated expansion which has been delayed by the disturbance characteristic of an election year:

First, for the last several months in the very face of the fact that business has been generally characterized as "only fair," carloadings have continued at record peak; idle cars are and have been at a minimum figure and motive power, in spite of abnormally favorable weather conditions, has been operating at near capacity.

Transportation therefore presents itself as the "neck of the bottle" through which the anticipated increase in business activity must pass and be measured. In no sense should this be interpreted as a suggestion that our railroad facilities are not now able to handle a substantial increase in business. On the contrary — they are admittedly operating with greater efficiency today than ever before, and I believe them still capable of efficiently handling a considerable increase in business activity.

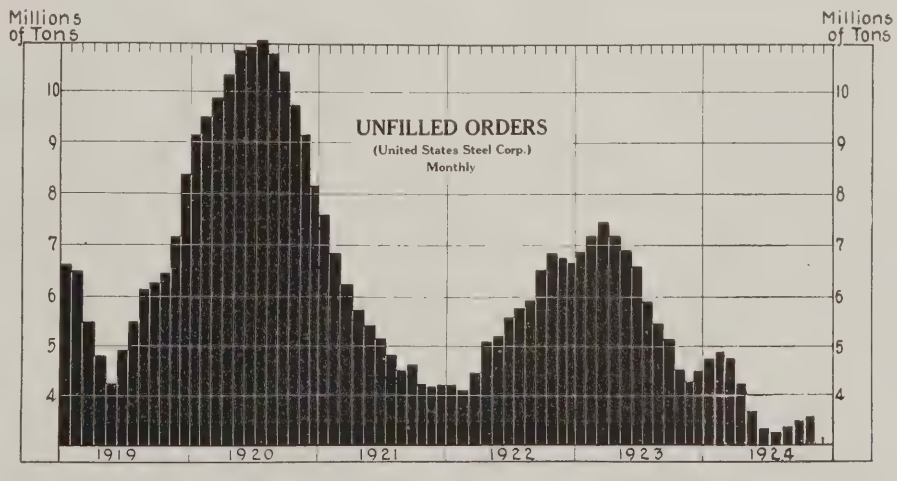
It is possible, however, that as business throws aside the uncertainty created by the election, that "one-day delivery" between points will cease to be the rule. This sympton of increased activity should not be so interpreted as to cause a buyers' panic. There is ample elasticity in our railroad facilities, but in the face of materially increased business they should not be expected to maintain the phenomenal delivery service of the past several months.

It is reasonable to expect, however, as "immediate deliveries" cease to be the rule — partly owing to increased load upon the railroads and partly to increased demands upon manufacturing plants — that many manufacturers will place the importance of early delivery ahead of minor price preferences. As a result, prices generally may have a tendency to turn upward aided and abetted by universally low manufacturing inventories coupled with increasing demand.

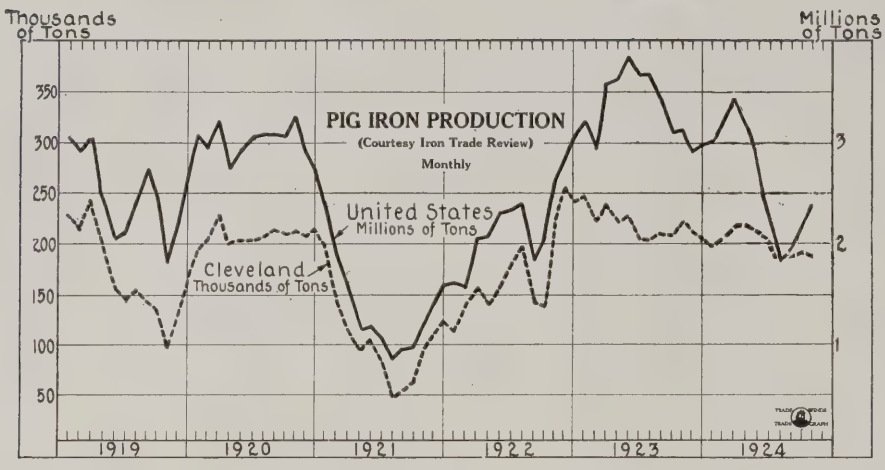
A bullish condition in industry should not, however, be over-capitalized. While we are frank in anticipating materially increased confidence with all the optimistic symptoms which accompany it, we are likewise always conscious of the fact that the productive capacity of the country still exceeds its consumptive capacity by an appreciable margin. In other words, given ample transportation facilities, production could very shortly overtake even the banked up demand which seems to have been incurred for the past several months. While the shelves of dealer and jobber are almost universally understocked and manufacturing inventories have been battered down to the lowest possible margin of safety, none-theless, the creative capacity of the country could take up this slack within a comparatively brief time.

In short, it is not a moment for hysterical plunging, or utter disregard of conservatism; rather should we take the substantial conditions of the moment at their full face value, capitalizing them with aggressiveness but with common sense reining our enthusiasm.

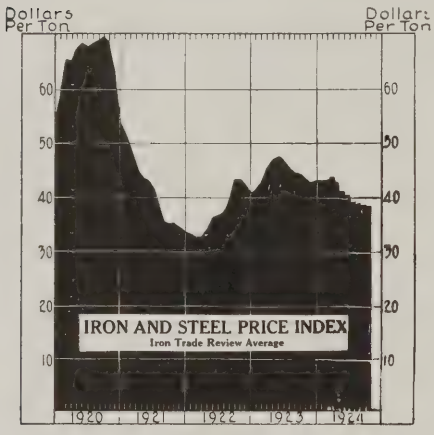
Personally, I regard any supposed inability of our railroads to handle the situation as a far cry. A slight slowing up in their remarkable efficiency is to be expected, but it should not create a runaway condition. This slight slowing up is rather to be desired, since it will have a tendency to somewhat brake too rapid filling of demand and will thus prolong the period of activity. Without this brake, our rather large surplus productive capacity would



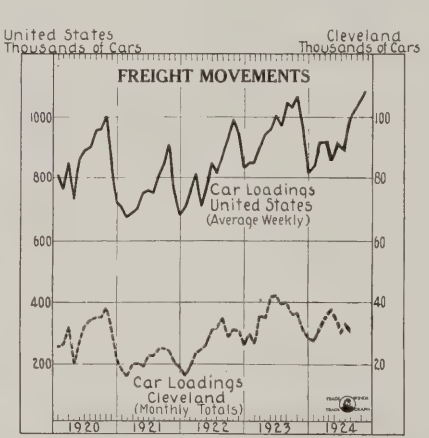
Evidence of the improvement which has been steadily proceeding in the steel industry is found in the report of unfilled orders of the United States Steel Corp., as of Oct. 31, made public on Nov. 10. The total of 3,525,270 tons showed an increase of 51,490 tons over the 3,473,780 tons for one month preceding. The aggregate of orders on the books of the corporation is now greater than at any time since last May. The gain over September was 1.5 per cent compared with the increase of 5.9 per cent shown by September over the August total. The smaller advance in October was due to heavier shipments than in the month before, and to some hesitation on the part of buyers, the result of political uncertainty



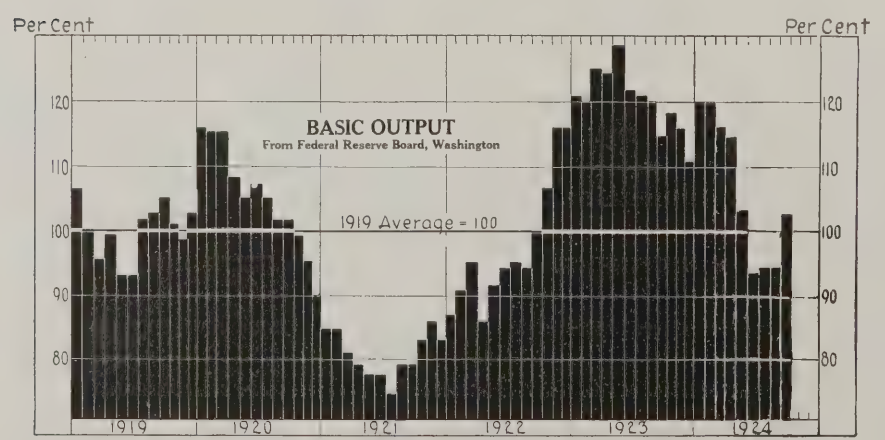
The production of pig iron is one of the most faithful of all industrial yardsticks. It has been rising steadily for three months. In October the total output was 2,461,444 tons. This was a gain of 20 per cent over the September figure and of 38 per cent over the bottom level in July. The increase in September over the August total was only 9.5 per cent. The number of furnaces in blast at the end of the month was 182, a gain of 37 since July. There was an increase of 8 furnaces in blast in October



Steel prices usually decline during the keenly competitive period of the early stages of revival after a time of depression. This year was no exception and Iron Trade Review's composite market index recently has been weak. The result of the election, however, accelerated the pace of steel trade recovery and prices in a number of products now are stiffening for the first time since last February



Recent records of carloadings have been the highest for all time. Unprecedented volumes of freight are being moved without a shortage of cars. This is partly due to the efficiency of operation and greater co-operation with shippers, and partly to the increase in equipment, 454,000 new freight cars having been purchased by the roads since 1921



The production of basic industries signaled a decided improvement in September. The index, computed by the Federal Reserve Board, with allowance for seasonal variation, increased nine per cent during the month. The index stood at 103 against 94 in August. This gain followed a precipitate tumble of 22 per cent between February and June. Further gains in output are exceedingly likely because consumption in recent months has been running ahead of production. The result has been to diminish stocks in many lines

have a tendency to flood the country, filling the prevailing demand within a period measured by the enthusiasm of the manufacturer and his forgetfulness of the lessons of 1920.

As the situation now stands, the transportation facilities of the country may have a leavening influence — retaining demand at a comparatively high pitch for a comparatively long period.

Obviously, we are optimistic and not without considerable cause although there are some apparent conflicts between various established measures of activity which might tend to confuse the picture if accepted too literally or given undue weight in the scales. For example, bank clearings, bank debits and car loadings show substantial increases over 1923 while many industries show actual decreases and reports from wholesale and retail fields do not show gains commensurate with those exhibited by bank clearings and debits. None-the-less, the "net" is undeniably optimistic.

Iron and steel operations are slowly increasing and prices while weak show early signs of stiffening. It is rumored that certain large buyers of steel, wishing to place orders for 1925, have found manufacturers unwilling to go beyond the first quarter and demanding a $2.00 advance.

While pig is still being sold at or below the cost line of the average furnace, symptoms of an early improvement in this situation are current — inquiries are active, production is slowly increasing, prices stiffening slightly.

The farm situation is likewise showing a steady improvement. While the farmer, especially in the wheat sections, is not pouring his increased income into purchases — preferring to pay debts incurred during his period of drought — nevertheless, mail order houses and

automobile manufacturers likewise, report a noticeable improvement in rural sections, while an important hardware manufacturer reports a very noticeable increase. Farm purchasing power is back at approximately the prewar level.

Government figures showed a slight employment increase in September and while accurate figures for October are not at this moment available, reports from various industries indicate they have or will shortly increase their force.

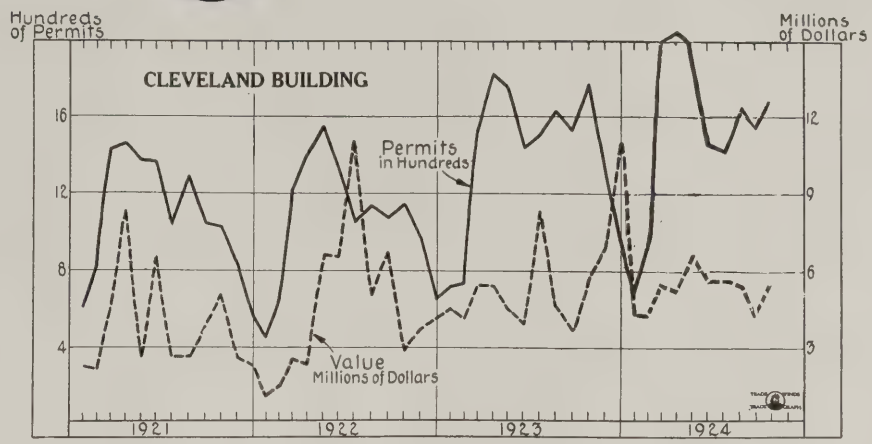
Production figures from the various industries indicate that as October progressed, anticipating a continuance of the prevailing political regime, they increased their productive capacity, and while the third quarter reports of many companies, particularly in the iron and steel industry, were not calculated to stir enthusiasm, they hardly threw a damper on the buoyant spirit of business, covering as they did a period of admitted hesitancy.

The motor car industry after a summer of approximately 60% production, has increased to about 75% and is facing the winter with enthusiasm, confident that a return of good business will immediately reflect itself in the purchase of motor cars.

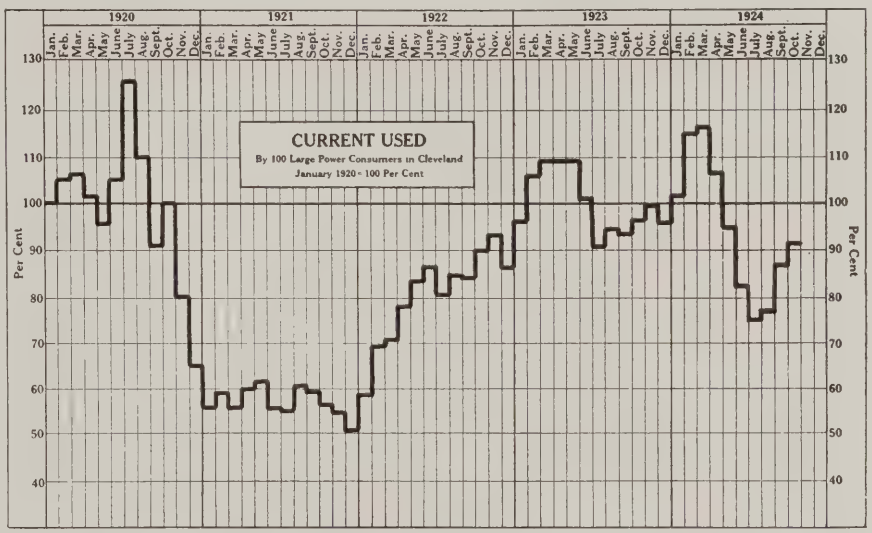
In summary, one might continue almost indefinitely with a list of occurrences in themselves trifling but in the aggregate indicative of confidence and enthusiasm for the winter and spring.

Business may not "get away" from the election barrier instantly, but it seems probable that early December will show concrete evidences in such substantial form that practically every business — even the somewhat depressed iron and steel industry — will feel the undertow of demand and the spirit of renewed optimism based on *orders in the shop.*

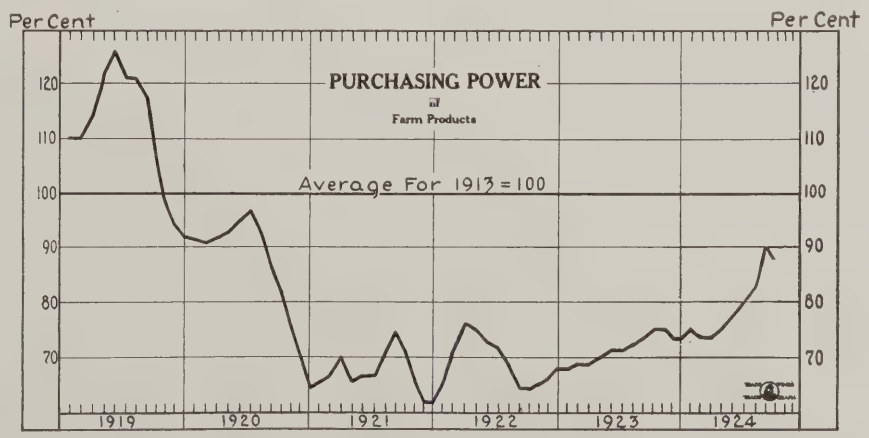
Only one caution — at the risk of forfeiting some small percentage of immediate profit — we urge a conservative though progressive attitude. We urge you to capitalize the upward swing of the pendulum but without trying to follow it to its uttermost point. We suggest enthusiasm, courage, aggressiveness touched with the shadow of remembrance of the cost of the unbridled enthusiasm of 1920.



Building activities in Cleveland spurted ahead in October. The total number of permits was 1,705 against 1,554 in September. The estimated valuation was $5,702,150 compared with $4,800,000 in the preceding month. One year ago in October, the number of permits was 1,786 and the estimated value aggregated $5,733,000. The number of new construction projects in Cleveland this year has been at a high level as shown by the accompanying diagram



Current used is indicative of productive effort. This chart is from figures furnished by the Cleveland Electric Illuminating Company and is used through the courtesy of the Cleveland Chamber of Commerce



September brought a slight drop in the purchasing power of farm products, as computed by the Department of Agriculture. The index stood at 90 per cent of the 1913 level in August and in September it was back at 87 per cent. The loss was caused by reductions in livestock, cotton, and a few other products. But the aggregate farm income may increase by $1,000,000,000 over that of 1923 and the farmer is enjoying the best times since 1920

English Business Conditions

By Barclay's Bank Limited
London, England

During the past month, two events of outstanding importance have occurred — the issue of the German Loan and the resignation of the Government.

The German Loan was quickly over-subscribed, and, had it not been for the interruption to normal trading activity, caused by the coming Election, the effect of the increased confidence resulting from the completion of one of the stages in the Dawes scheme would have been more evident.

Although the holiday season has now terminated, there is no definite indication of any appreciable improvement in trade, the general tone being still rather hesitant.

The coal trade again reports an inactive demand for most descriptions, and many of the collieries are only partially employed, while in the export districts prices have fallen and the volume of trade has diminished. Some reduction in the export figures, compared with last year, was to be expected, as the shipments in 1923 were abnormally swollen by the stoppage of production in the Ruhr. During the first eight months of 1924, coal exports to Belgium, France, Germany, Italy and the Netherlands, amounted to 23½ million tons, compared with 37 million tons in 1923, but the corresponding figure for 1913 was only 23½ million tons — the same total as recorded in 1924. The total exports to all countries for the first eight months amounted to 42 million tons, compared with 48 million tons for the corresponding period in 1913, shipments to Russia, the Upper Mediterranean Ports, the Far East, and South America, showing substantial reductions.

Coal Production in Great Britain

	Tons
1913	287,000,000
1923	278,000,000
1924 (Total to Sept. 27th)	202,000,000
1924	
Week ended: Sept. 6	5,180,400
Sept. 13	4,906,700
Sept. 20	5,134,900
Sept. 27	5,208,300

The iron and steel trade also remains depressed. At this time of the year, an autumn revival usually occurs, but so far there has been little evidence of increased activity, and new business is arriving very slowly. Business in many instances is reported to be unremunerative, and although coke prices have been reduced, manufacturers are not disposed to make further price concessions, in view of the losses previously incurred. Buyers continue to operate from hand-to-mouth, very little forward buying being in evidence. Continental competition is still keen.

	Production Pig Iron Th. Tons	Production Steel Th. Tons	Imports Iron and Steel Th. Tons	Exports Iron and Steel Th. Tons
1913 (average monthly)	855.0	639.0	185.9	414.1
1923 — January	567.9	634.1	128.9	353.4
July	655.1	624.3	114.1	307.6
1924 — January	631.5	690.1	141.5	337.7
April	618.4	711.5	198.9	336.8
July	615.6	693.3	201.2	339.7
August	588.9	527.5	173.7	301.0
September	569.2	645.0	207.2	263.8

Lloyd's Register Shipbuilding Returns for the quarter ended September 30, show that the tonnage under construction in Great Britain and Ireland — 1,468,408 tons — is about 48,000 tons less than at the end of June, 1924, but there is an increase as compared with twelve months ago of about 197,000 tons.

The average tonnage building during the twelve months immediately preceding the war was 1,890,000 tons, i. e. 422,000 tons more than the present total.

A considerable decrease is shown in the tonnage commenced during the quarter, namely: 252,745 tons, as compared with 375,210 tons during the second quarter of 1924. The tonnage launched during the quarter — 360,219 tons — is only 4,299 tons lower than that for the June quarter, which is the highest reached during the last 2¾ years.

Reports from the cotton industry are a little more encouraging. The decline in raw cotton and the prospects of a large American crop will, it is thought, lead to an increased turnover in cotton goods, although at the moment the market is a little unsettled owing to the lack of steadiness in prices. Business with India continues to be encouraging, but the disturbances in China have restricted trade with that country. Spinners of American yarns continue to experience a good demand, although the Cotton Spinners Federation have decided that the mills using American cotton shall continue to work only 26¼ hours per week.

The woolen trade has recently been a little uncertain. The continued rise in the price of raw wool, and the difficulties experienced in financing the purchases, have checked the active buying previously in evidence, and the raw material has experienced a slight setback, although the statistical position remains strong. Manufacturers are experiencing difficulty in passing on to consumers the increased cost of the raw material.

The trade returns for September show that imports again ruled at a high level, amounting to nearly £101 millions, while total exports were just below £73 millions. The feature of the trade returns for the current year is that while imports have shown an increase of £122 millions over the first nine months of 1923, British exports have only increased by £23 millions and re-exports by £16 millions. This disparity may be explained partly by the fact that domestic stocks have been increased, and partly by the greater home consumption, and it is noticeable that imports of food, drink, and tobacco, show an increase

Please continue on page 24

Significant Changes in Distribution

An Interview by J. GEORGE FREDERICK
with DR. PAUL H. NYSTROM
Director of Retail Research Association

A CASTING up of the situation in distribution conditions is a highly timely and significant thing at the present time. For the past ten or fifteen years a number of new developments have been at work, and at no time in the past has it been possible to make quite as clear an appraisal of them as now, when they have been undergoing the test of deflation, pressure and competition.

The most thoroughly equipped man to make such an appraisal is Dr. Paul H. Nystrom, director of the Retail Research Association, and author of "The Economics of Retailing" and other works; a man who has the double capacity of an actual executive in distribution and an academic research training. Dr. Nystrom has recently concluded some of his studies on the subject, with some most interesting figures, principal of which are his estimated total of the retail volume of business in the United States, and estimates of the volume by types and classes of distributors.

"Arriving at the total figure of retail volume is a very difficult task," says Dr. Nystrom, "and I am far from satisfied with my estimate. There are various methods by which to arrive at such a total figure, none of which are adequate for accuracy. For instance, there is a fairly good estimate that retail sales average about $8,000 to $12,000 annually per person employed in retail stores. By multiplying this average by 3,500,000, the number engaged in retail trade, a fairly reliable total is gained. The State of Pennsylvania now requires a report on volume of business from each retailer, and this produces an average per retailer, of all kinds and sizes, of $16,000. I estimate that Pennsylvania's average is lower than the country's general average and by making it $20,000 and multiplying it by 1,650,000, the total number of retailers, we again have a mode of checking my final estimated grand total of 35 billion dollars retail volume of trade.

"This sum is about one-half of the total income of the United States, which was approximately 70 billions annually for 1923. How the 35 billion retail volume of trade is distributed among the various mer-

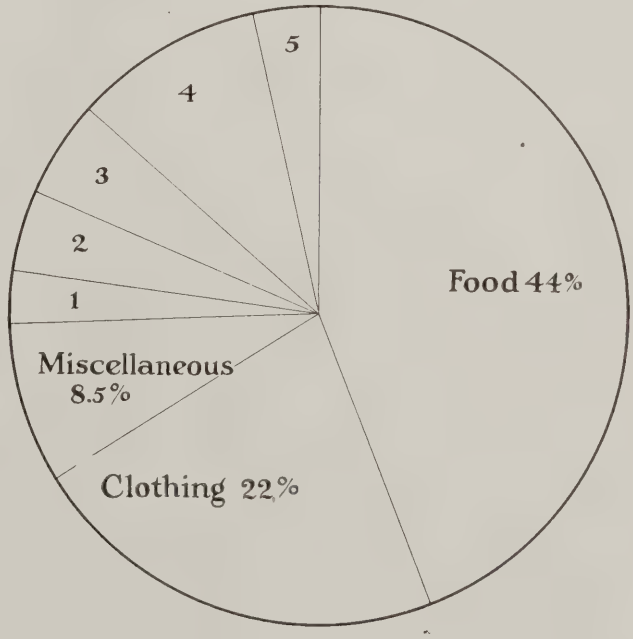
CLASSIFICATION OF TOTAL VOLUME OF UNITED STATES RETAIL TRADE AS TO METHODS OF SALE

(1) Commissary Stores	4.5 %
(2) Mail Order Stores	4.6 %
(3) Department Stores	16.0 %
(4) Chain Stores	8.0 %
(5) House to House Sales	.13%
(6) Co-operative Stores	.02%

TOTAL ANNUAL RETAIL EXPENDITURE IN UNITED STATES ($35,000,000,000)

Classified into Main Groups of Stores

(1) Jewelry and Musical Instruments	2.8%
(2) Candy and Beverages	4.2%
(3) Tobacco and Products	5.0%
(4) Automobiles and Automobile Supplies	10.0%
(5) Furniture and Furnishings	3.5%



chandise lines is shown on the accompanying chart, illustrating the following tabulation:

	Billion
Food	15.3
Clothing	7.7
Furniture and Furnishings	1.3
Automobiles and Supplies	3.5
Tobacco and Products	1.7
Candy and Beverages	1.5
Jewelry and Musical Instruments	1.0
Miscellaneous	3.0
	35.0

"These figures illustrate distribution from the angle of volume and classification. Perhaps the most interesting thing however is the movement in distribution *method*. Take house to house selling. A surprisingly large volume of goods is sold in this manner — hosiery, brushes, remedies, books, etc. There are probably fifty companies selling hosiery in this manner. One brush company sells $15,000,000 worth annually, and one household remedy and toilet goods concern, selling by wagon, has a $20,000,000 annual volume. This mode of distribution has shown great speed of growth and alertness, as illustrated by its new ideas, one, getting an interview by means of a present, and second the 'two pay' plan whereby the salesman collects only enough to pay his commission, the balance being sent direct to the house by mail by the customer. However, this mode of selling, which is one of the oldest known, has severe natural limitations, although I estimate the volume of business done in this manner at $500,000,000.

"Then there is the mail order method, which represents about 1,225 companies doing a business of $100,000 or more by mail; and whose total annual volume I estimate at 1½ billion dollars, or about 4% of the total retail trade. Probably this percentage will not be increased. The automobile, good roads and other factors have brought about an arrest of the rapid growth of this mode of distribution.

"The co-operative store is a fairly small factor in the United States, large as it looms in other countries. There are about 3,000 such stores in the United States, but the total volume is probably not over 75 million. I do not believe it has an important future in our generation.

"The commissary store is a frequently overlooked factor of importance. There are 8,000 of these, doing a volume of 1.3 billion dollars annually or nearly 4% of the total.

"The term department store being an elusive and vague term, there is not a high degree of accuracy possible. There are 445 department stores — arbitrarily and probably not accurately classified — doing a business of $1,000,000 or over. The total volume of department store trade — limiting the term to the larger institutions claiming the title — is about 5.5 billion, or 16% of the total retail trade. As some of these stores sell groceries and hardware and others do not, the estimate is naturally out of proportion. More than one-half of the ready-to-wear business of the country, and over half of the toilet goods business is done by department stores.

"Department stores are increasing in number, but probably only in proportion to growth in population. Their volume is growing more rapidly and shows no immediate sign of reaching their peak. At present there seems to be a well defined growth of new department stores in the suburbs of great cities.

"As for chain stores, this type of distributor has shown by all odds the greatest gains and the greatest prospect of gain. There are now over 2,000 chains, with something like 60,000 unit stores, doing a total estimated volume of 2.8 billion annually; something over 8% of the total retail trade.

"The above mentioned types of retail distributors account, after all, for only about 30% of the total retail volume of trade, which makes clear that the great main body of old-established retail outlets are by no means being eliminated in the competitive struggle.

"The chain store is the lusty young giant of the group of new distributors. Its total volume has probably quadrupled in the last ten years. Some cities show particularly amazing growth. In Philadelphia they have grown from 10% of the total volume of grocery business in 1910 to 65% in 1922; in New York, from 10% to 55 or 60%. In 1913, there were 600 chain stores in New York City, in 1923, there are over 5,000. It is estimated that chains do 20% of the drug business, 15% to 20% of the grocery business, and 50% of the notion business.

"There is a myth about the chain store, however — its reputed lower cost of doing business. Actually, the chain stores' true costs of doing business are probably not below what is possible for independent stores, measuring service for service. The Liggett cost of doing business, probably 30%, can be beaten by independent stores. The 5 and 10-cent chains have a cost high as the average department store.

"Group buying is a matter of significant current development, bound to increase, as it is mutual or co-operative protection by the independent retailer against the quantity buying power of the chain. The mutual wholesale house, owned by retailers is a new development, as is the "cash and carry" *wholesale* house.

"The ferment and change going on in retail distribution is a healthy change and readjustment to modern conditions and to the public pressure for reduced distribution cost."

The value of American exports in September was $427,000,000. This was a gain of $100,000,000 over the August total and the highest volume for any month since February 1921. The huge total of exports was due to the enormous gains in shipments of cotton and wheat to Europe. Wheat exports, due to crop failures abroad and the reviving credit and purchasing power of Europe, have doubled over those of one year ago. Imports increased $30,000,000 in September, largely due to higher silk imports

"Mine Host" BECOMES A MERCHANT

Photos, courtesy Hotel Cleveland

A side-light on the hotel as a market

By HARRY BOTSFORD

WITHIN a decade a revolutionary change has taken place in the hotel industry. Time was when the social angle of the industry was the principal thing; today the industry is purely commercial. For much of this change the responsibility must be laid at the door of Mr. Volstead. The bar used to carry the losses of other departments, but, with this gone, the hotel found that it was necessary to become a business establishment operating on an efficiency basis.

The hotel business has grown exceedingly fast in the past decade—motor transportation, growth of "hotel living" — due to shortage of houses—and the development of apartment hotels, increase of all travel and of population — the increase of the resort hotel business—all of these factors have contributed to making the industry a tremendous one. As the industry has grown in importance the old-time genial host has disappeared and in his stead there is a hard-working individual, alert, keen and highly efficient.

Consider the average hotel—aside from the usual business of providing sleeping quarters and food for registered guests, it also conducts a flower shop, a cigar stand, a drug store, a news stand, a barber shop, a beauty parlor, a cafeteria, a library — and what not? True, some of these matters are often handled through concessions but they must be carefully supervised.

What sort of a market do the eighteen hundred hotels in the larger cities of the United States make? What do they buy—how long does it last? Here are questions that are at once pertinent and interesting. The answers should be of interest to the butcher, the

"As the industry has grown, the old-time host has given place to the keen and highly efficient hotel manager"

A few vistas in the supply rooms of the Hotel Cleveland showing the kitchen, the bakery, and the "pantry"

Hotels consume annually 2,150,000 dishes, 7,425,000 pieces of table silver, 1,100,000 dozen napkins, a neat market

baker and especially to those who patronize hotels—guests and patrons of cafeterias and other retailing outlets. The entire hotel proposition attains considerable dignity when it is considered that a fund of $2,000,000 has been provided for the purpose of a school of hotel management in Cornell University.

The hotel business is growing at the rate of 50,000 rooms annually. This growth may not seem very large but it appears to assume some growth when it is taken into consideration that every room represents an average of 500 feet of floor space: corridors, bath-rooms, public rooms, storage and service departments.

The annual replacement of hotel fixtures and equipment is tremendous. If one is seated in the hotel dining room and from the kitchen there comes the faint crash of a breaking dish, one passes it over casually. Yet, if that crash were magnified to a point where it would incorporate 2,150,000 dozens it would make a noise like a million boiler plants going at once.

Take paint for example—each year the hotel market consumes 2,970,000 gallons of paint to keep their property looking spic and span. Wall paper isn't generally used in many hotels—yet those hotels which do use it manage to consume 1,650,000 rolls of it. A special writer for a Sunday paper could tell just how far that paper would reach, stretched end to end.

Do guests ever take the silver home? One wonders, especially when it is figured that 7,425,000 pieces of table silver must be replaced each year. Napkins also wear out, so it would seem, when 1,100,000 dozens of them must be bought each year.

Food—of course the hotel market consumes great quantities of it: 1,320,000 barrels of flour, 9,900,000 jars of marmalade, 3,300,000 pounds of tea (one wonders how many barrels of tea this would make!) Ginger ale is in pretty constant demand when 3,300,000 cases of it are used each year. What a whale of a highball that would make!

Keeping the hotel clean is a real job. Consider these items (which include kitchen cleaning materials): cleaning powders, 16,500,000 pounds, 9,900,000 pieces of cleaning soap. Listed in the room supplies one will find figures that indicate that 27,500,000 pounds of cleaning powder is used—55,000 dozens of brooms. In the laundry 44,000,000 pounds of soap and 6,600,000 pounds of starch and blue is consumed each year. Keeping the guest clean also consumes 440,000,000 pieces of guest soap and 1,980,000 dozens of towels of all kinds.

The paying guest uses a number of odd items in the course of a year. It takes, for example, 165,000 gross of pins for his needs; matches are consumed at the rate of 358,050,000 boxes a year. This last figure rather proves that the average hotel guest is a heavy smoker! Razor rags—550,000 dozens of them! Do hotel guests write letters? Do they! They use in one year 5,000,000 sheets of large blotting paper, 550,000 quarts of ink, 11,000 dozens of ink wells, 3,960,000 dozens of pencils and

Some of the unseen departments of a modern hotel, showing the laundries of the Hotel Cleveland

Hotels of the country wash 4,763,000,000 pieces of bed linen, and 2,308,640,000 pieces of table linen annually

1,100,000,000 sheets of writing paper.

The renewal cost of china alone runs into $22,400,000 a year—8,068,800,000 dishes are washed each year and some breakage is bound to occur.

Heating the modern hotel consumes annually 11,200,000 tons of coal. Over 13,000,000 electric light bulbs must be replaced each year and the consumption of electricity reaches the astounding total of 1,688,200,000 K. W. H.

It takes many employees to run a hotel properly—all told 824,000 employees are required to take care of 81,600,000 registered guests and 451,200,000 unregistered guests. During the course of a year these employees eat 477,600,000 meals while the registered guests only consume 709,600,000 meals.

That portion of the hotel laundry which launders for the hotel and not for the convenience of the guests has a real job when it is taken into consideration that 4,763,000,000 pieces of bed linen must be cared for and 2,308,640,000 pieces of table linen laundered.

Taking these items under consideration it will be very evident that scientific methods are needed in the management of the modern hotel. The change in management has literally made "mine host" a business man in every respect—the growth has been so rapid that many statisticians have insisted that the hotel industry deserves fourth place in a great national industrial life.

That the industry is going to enjoy a steady growth is very evident. The servant problem, plus the conveniences of the modern apartment and residential hotels, are factors which will keep the growth alive if anything will.

Considered as an industry, it certainly does have some very interesting angles.

Automobile production may taper off somewhat during the winter months, as producers are unlikely to repeat last year's mistake of overproduction and overstocking. In September the production of cars and trucks was 288,000, and in October about 284,500 or 3,500 less than September. In the first nine months of 1924, the output of 2,827,900 cars and trucks was a reduction of six per cent below the total for the corresponding period of 1923

Industrial Mobilization

Continued from page 4

and it is expected that super-agencies will be created in time of war for their control. These agencies will have representatives in each of our industrial districts and elsewhere, as necessary, so that the vast majority of questions may be decided locally as they arise.

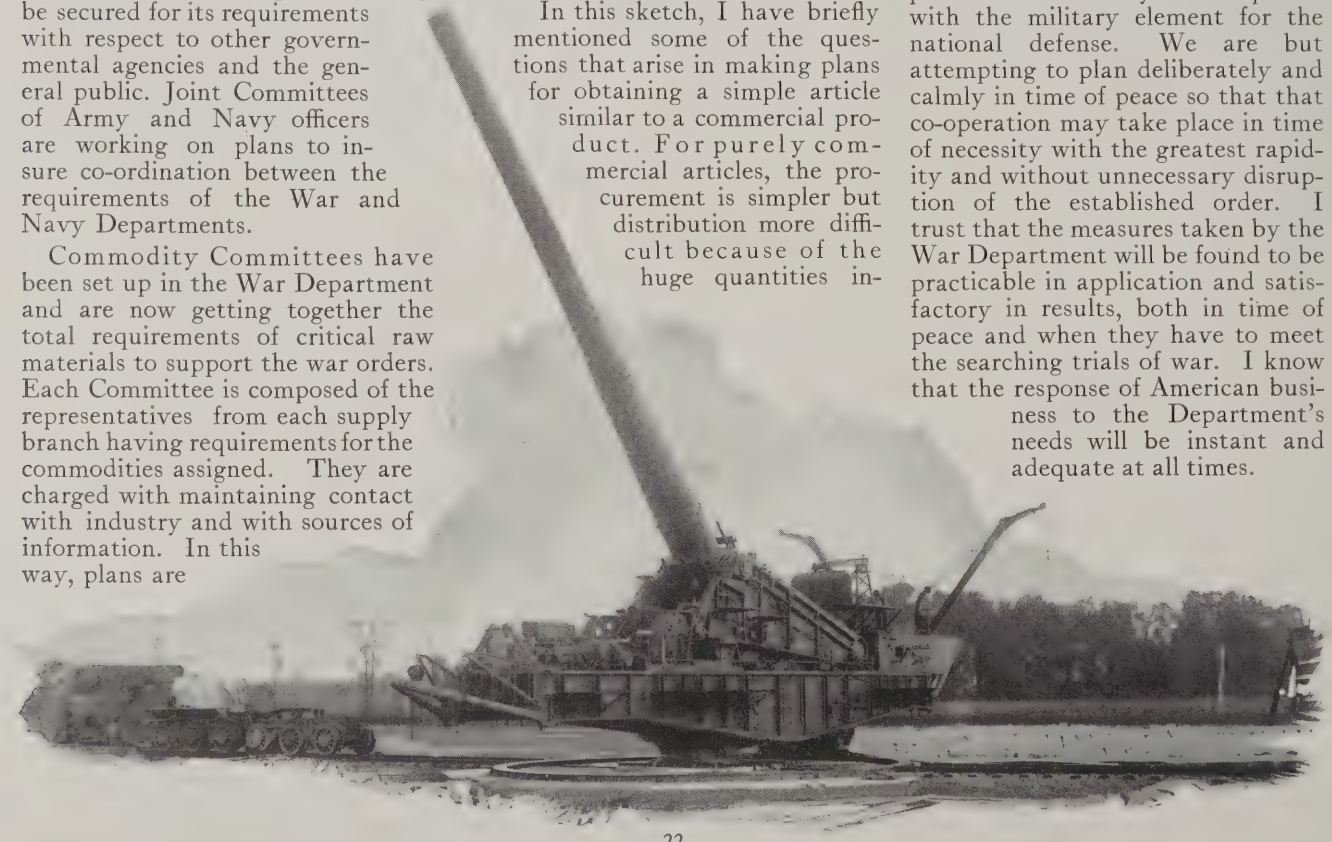
He will also want to be assured of a supply of raw materials sufficient to take care of his war order and at reasonable prices. Inasmuch as the law of supply and demand practically ceases to operate in time of war, the supply of raw and semi-finished materials to industry in an emergency raises the most far-reaching and vital questions of the whole industrial problem. The three major factors in the solution of these questions are price-control, priorities and commodity committees. It is expected that these functions will be exercised by a super-agency, such as the War Industries Board during the World War. The War Department's share will be to determine the relative priorities between its own requirements and to present its case before the super-agency so that proper priorities may be secured for its requirements with respect to other governmental agencies and the general public. Joint Committees of Army and Navy officers are working on plans to insure co-ordination between the requirements of the War and Navy Departments.

Commodity Committees have been set up in the War Department and are now getting together the total requirements of critical raw materials to support the war orders. Each Committee is composed of the representatives from each supply branch having requirements for the commodities assigned. They are charged with maintaining contact with industry and with sources of information. In this way, plans are being developed and a supply of raw and semi-finished materials, as adequate as circumstances will permit, will be assured each war contractor.

Finally, the manufacturer will want to have a contract which will mutually protect his interests and those of the government. A War Department Committee has been working on war contract forms for a long time and with advice from numerous sources and is gradually evolving forms which it is believed will greatly diminish the difficulties experienced by contractors, during and since the World War, with their war contracts. It is expected that these forms will assure each contractor a fair price, protect him from conditions which are beyond his control, provide for prompt payment of sums due for goods delivered and in some cases for actual expenditures for plant extensions required by the contract in advance of actual production. At the same time, they will protect the government against profiteering and will provide every incentive for the diligent and economical prosecution of the work.

In this sketch, I have briefly mentioned some of the questions that arise in making plans for obtaining a simple article similar to a commercial product. For purely commercial articles, the procurement is simpler but distribution more difficult because of the huge quantities involved. For purely military articles of a highly technical nature, other questions of special equipment, machine tools, jigs, and gages are encountered. Those processes and arts having no parallel in commercial practice present special problems. All of these are receiving due consideration which space will not permit discussing here.

Such in bare outline is the scheme under which the War Department is working toward a proper industrial preparedness. The war chest of ancient days has been aptly compared to a modern nation's industrial capacity. A sufficient hoard of gold would now be impossible and futile — it must be replaced by the readiness of our industries to transform our resources into munitions. Our reliance on the industrial side rests upon the scientific and technical skill of the American people, their ability to organize and manage large undertakings and to utilize the economic resources of the nation. The duty of the War Department is to present its demands in a clearly defined manner in order to make it possible for industry to co-operate with the military element for the national defense. We are but attempting to plan deliberately and calmly in time of peace so that that co-operation may take place in time of necessity with the greatest rapidity and without unnecessary disruption of the established order. I trust that the measures taken by the War Department will be found to be practicable in application and satisfactory in results, both in time of peace and when they have to meet the searching trials of war. I know that the response of American business to the Department's needs will be instant and adequate at all times.



Memories of a Consolidation Formed on a Pullman Car Near Cleveland

Continued from page 8

Rubber Goods Manufacturing Company and agreed with them to pay them $75,000 in cash for their services as bankers.

That consolidation was to take up the Mechanical Rubber Company consolidation, which I had previously consolidated. Then I opened negotiations for the Hartford Rubber Works, one of the most important tire companies in the United States, owned by Col. Pope of bicycle fame. I asked Ivins, as my lawyer, to open negotiations with Pope. The Colonel became so fascinated with Ivins that he retained him as his own lawyer in connection with the organization of the American Bicycle Company.

I then took up negotations with G & J of Cleveland. A doctor told Miller of the Peerless Rubber Company that he couldn't live over six months, so with this in the offing, I bought the Peerless for $600,000, whereas it was worth $1,000,000. But Miller, in making arrangements to leave this mundane sphere, preferred cash to plants. The result was the organization of the Rubber Goods Manufacturing Company.

When it came to rounding up that consolidation, Barring, Magoun & Company wanted information as to the details of the organization, so as to get an idea as to the profits.

The fact was that they wanted to look under the gospel tent, as the saying goes, to see whether there was a bible or a woman in the tent. I told them that I had made a specific trade with them, and that under the agreement they were to receive $75,000 in cash, which I was prepared to pay them. The agreement was clear, and although it was rather their inability to look under the tent that displeased them, they accepted the $75,000.

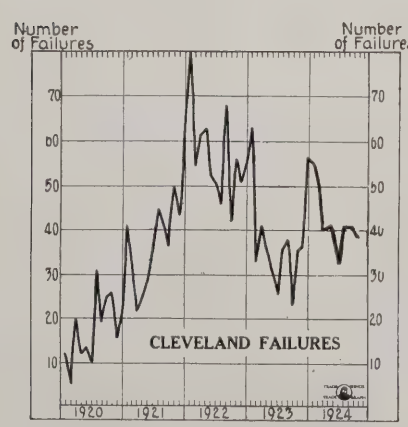
I never had any arrangement with Ivins as to compensation for going to London, but after Rubber Goods was organized, I handed him an envelope, containing securities, which he sold for over $250,000. He told his partner, Kidder, that for the first time in his life he had a fortune.

The Rubber Goods Manufacturing Company concern was prosperous. I then conceived the idea of consolidating the United States Rubber Company with the Rubber Goods Manufacturing Company and other concerns, which involved the raising of $15,000,000 in cash. I took up the negotiations with Ryan, Brady, Rogers, in which they indicated their willingness to put up a very large amount of cash. Morgan, B. J. Work and O. C. Barber signed for a half-million each, and I was making great progress. Two of my associates and friends went to Rogers to procure his signature. He took his pen in hand to sign, but a darky boy knocked at the door and said a gentleman wished to see him immediately, and Rogers dropped the pen and rushed out, to see someone of great importance.

The next day two of my friends went to see him to secure his signature, and his reply to their surprise was that he didn't propose to have "so much Flint domination!" I was interested to ascertain why this sudden change, and I found that Rogers' idea was to corner the crude rubber market and thereby create a situation so that the manufacturers of rubber shoes and mechanical goods would be in his power, or the power of the syndicate which he might form, so that a consolidation could be brought about at a greater profit to the consolidators than if the negotiation was conducted without the power that would come from cornering raw material.

When Rogers said "thumbs down," it meant the withdrawal of many of the capitalists from their desire to invest. I then purchased enough crude rubber so that it was impossible for anyone to corner the crude rubber market; but the final result was my inability to hold the situation, and I incurred a heavy loss.

Some years later the consolidation was brought about and the United States Rubber Company today owns practically all of the stock of the Rubber Goods Manufacturing Company, which gave the United States Rubber Company the great advantage of different sources of revenue. If a concern simply manufactures rubber boots and shoes, its prosperity is very largely dependent on "slush." By having a diversified product, they have almost a certainty of substantial earnings. It was this development which led me later to see the unusual possibilities in consolidating *allied* industrial interests.

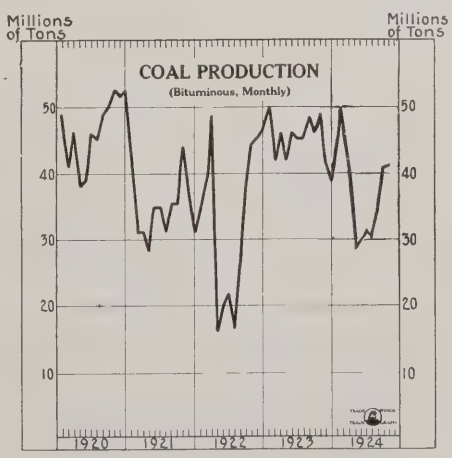


Cleveland Failures

The number of business failures in Cleveland, as reported by Bradstreet's, showed a slight decline in October. The total was 39 with liabilities of $465,056. This compared with 42 failures for $1,408,935 in September

Coal Production

The output of soft coal found a level during October at around 10,250,000 tons weekly. Industrial consumption is increasing slightly but warm weather has retarded buying for domestic purposes. The output of soft coal in October was approximately 41,100,000 tons against 40,900,000 tons in September



English Business Conditions

Continued from page 16

of £32 millions, and manufactured articles of £32 millions. Price levels have had an influence on the figures, while some of the additional imports may form the basis of exports later, but, even allowing for such factors as these, the figures for the current year are not entirely satisfactory. Allowance should, however, be made for the decline of £20 millions in the exports of coal for the first nine months of 1924; exports of British manufactures have increased by £32 millions.

The unemployment figures are less encouraging; the number of persons on October 6, 1924, recorded on the registers of Employment Exchanges in Great Britain, was 1,215,000, which, although 70,000 less than the figure recorded on December 31, 1923, compares with a figure of 1,015,000 in June. A seasonal increase in unemployment is not unusual at this time of the year, but the present high total shows that progress remains very slow.

In spite of various adverse factors, however, there is no reason to assume that business has received any definite setback. Prices last month showed a slight increase and banking advances continue to expand. The volume of exports shows no reduction, compared with a year ago, while to some extent the increased imports indicate that more orders are either in hand or in sight. One or two important industries, such as iron and steel, coal and shipbuilding, are passing through special difficulties, but progress is being made in other directions. At the moment the imminence of the General Election is creating some uncertainty, but this is a temporary influence only, and the success which has attended the efforts to secure financial stability on the Continent should gradually have a broadening effect upon our international trade.

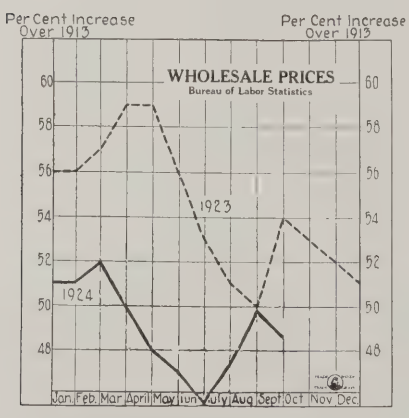
What Keeps the Right Boys Out of the Machine Shop?

Continued from page 11

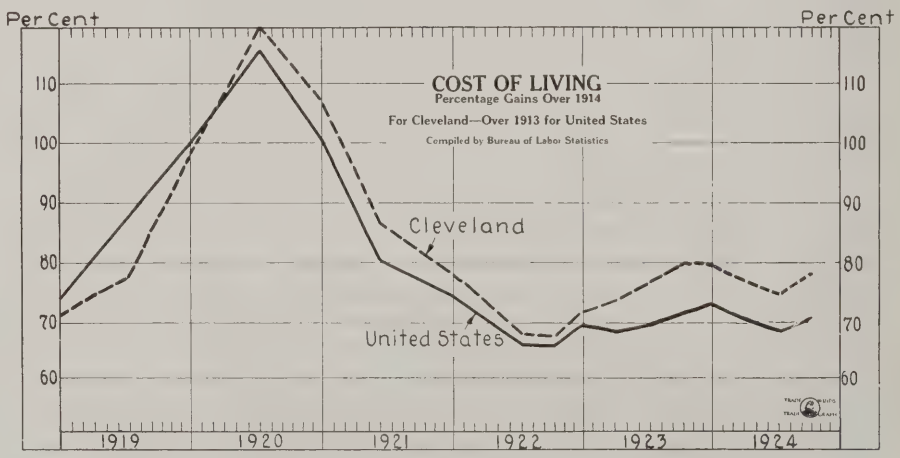
ducer even though this emergency only occurs at infrequent intervals. If he can prevent its occurrence at all he is even more valuable. It might even be wise to create a new title such as "master machinist" or "master craftsman," and make its attainment not a matter of years but of actual achievement. While such a title is perhaps equivalent to the old title of "journeyman," this has fallen into disuse and no longer means anything to be proud of. But a new title and new conditions might serve a useful purpose at this time.

There are many men who might have made excellent master machinists, who are now in other and less useful occupations. They either started wrong from the lack of right opportunities, false pride on their part or on the part of their parents, lack of proper recognition of the master craftsman by the community, or they may have switched for some of the above reasons or for greater remuneration in other lines.

The machine industry is big enough and vital enough to provide opportunity for the best brains and the best skill in the country. Without them it cannot render the full service of which it is capable. Let us make it an industry which will appeal to the young man with brains, with initiative and who desires an opportunity to create. Something which will satisfy his desire for romance, for self expression and for service.



Wholesale prices, as measured by the Bureau of Labor statistics' index, declined slightly in September. The number stood at 148.8 against 149.7 one month before. Metals, fuel and clothing were lower, while building materials and foods advanced. On November 1, however, a sharp rise in prices is indicated by Dun's index, which was 5½ per cent above the year's low point and at the highest level since January, 1921



Living costs, which tended downward in the early months of 1924, turned upward in September. The cost of living index, compiled by the bureau of labor statistics, increased almost one per cent from June to September to a level of 70.6 per cent over the 1913 average. It is now 21 per cent below the 1920 peak. In Cleveland, living costs rose 1.1 per cent from June to September, rising to 77.9 per cent above the level of 1914

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DECEMBER, 1924

Solving the Transit Problem
By O. D. FOSTER

Cleveland's Educational Opportunity
By DOCTOR ROBERT ERNEST VINSON

Fitting the Plant to Today's Problems
By E. J. KULAS
President, The Midland Steel Products Co.

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Solving the Transit Problem

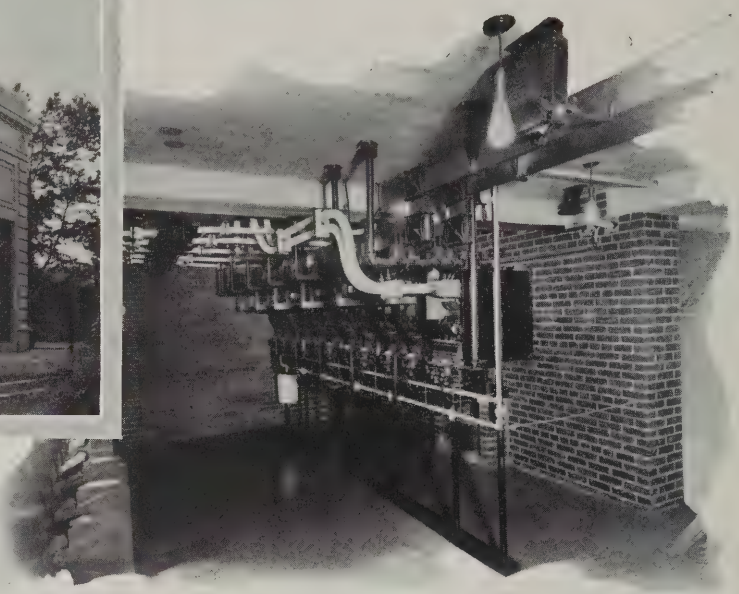
An unusually interesting and studious review of the transit situation with the present tendency toward solution of its peculiar problems—problems of vital interest to every reader of TRADE WINDS

By O. D. FOSTER

BY SOME ironic twist of economic conditions, this country stands in a peculiar position. Never before in its history have we had so great an aggregation of motive power, and yet never before has the problem of mass transportation reached a more acute stage than at the present moment.

On the face of it, it is apparent that we have more transportation than the streets and highways of the country will carry, yet the opening of new highways and the constant widening of city streets seem to offer nothing more than temporary relief. What then is the difficulty which confronts us in the better handling of mass movement, and what can be done to relieve the congestion which faces us at every traffic center?

To speak briefly, our main difficulty is not concerned with either motive power or highways. It has a more fundamental origin. What this country needs most of all at the present moment is *a complete*



"The Cleveland Railway Company was a pioneer in the installation of automatic substations which operate with less waste and without manual attendance"

co-ordination of every form of public transport under responsible and properly organized management. There is only one solution of the traffic problem which is possible under existing conditions and that is a unification of the service in each locality, which should be directed by men who have made it their life business to study the economics of mass transportation. Traffic space must be made productive to the maximum, if we are to avoid congestion. To do so, proper analysis should be made of all street areas and this space should be used as effectively as possible for the movement of the common carriers which are the arteries of the nation's business. In transportation, as in many manufacturing interests, competitive and duplicated service is not only wasteful but is actually injurious to the community and should not be permitted in the best interests of public welfare.

In the past ten years, electric traction interests have faced a serious crisis. With the advent of the automobile, with the constantly increasing political pressure which was brought to bear in the renewal of franchises, they suffered what almost amounted to temporary collapse. Public utility securities, particularly those of the traction companies, were a drug on the market, for the public had lost confidence in their earning power. Today the pendulum has swung in the other direction, and *the public utilities have come back.* The public has learned through well directed publicity and a frank discussion of public service problems that no community can prosper if it fails to take into account the relation its public utilities bear to its business progress. In other words, it has learned that *no community can continue to grow if it starves its utilities.* As a result, entire communities are now standing back of public service interests — even to the extent of going down into their pockets and investing heavily in public utility securities.

In consequence, the closing months of 1923 marked a new era in the traction industry, for during that year it carried over its 44,000 miles of track a total of 16,000,000,000 persons, which is the largest number ever carried over the electric railways of any one country since time began.

This statement is especially significant for several reasons. First of all it marks distinctly the progress in electric traction interests, for 1923 was a year notable as that in which automobile production reached its highest point, and it is open knowledge that the enormous increase in the use of automobiles has been a severe blow to the street railways. During 1923, approximately 3,650,000 passenger cars were manufactured and passenger car registration reached the high point of 13,457,214. Yet, in the face of this great automotive movement, the street railways not only came back, but *exceeded* all previous records of accomplishment.

FEW people realize the magnitude of the investment in the electric traction industry in this country. It represents almost $6,000,000,000, which constitutes about two per cent of the national wealth. This amount is greater than the combined investments in all gas, telephone and telegraph companies. In the operation of its 44,000 miles of trackage, it employs 301,000 people. Its annual payroll reaches $445,000,000. It has 104,000 cars in service and 2,000 motor busses are being operated in connection with its lines. During 1923, the industry spent $282,000,000 in the purchase of materials for maintenance, extensions and improvements, and about 64 per cent of this was utilized for new equipment and extensions. During 1924, the estimates for expenditures of a similar character were set at approximately $262,000,000, an amount which in all probability will be exceeded.

Not long ago, the Department of Commerce made public figures from

the census of manufacturers showing the purchases of cars by the electric railway companies in 1923 as compared to 1921. It was found that the electric railways had bought more than twice as many cars last year as were bought for the two years previous. In 1921, purchases covered 1,358 passenger cars and 62 freight cars, valued at $10,128,472, whereas in 1923, the number had grown to 2,767 passenger cars, valued at $25,695,757 and 115 freight cars, valued at $488,956. The increase in the number of cars was 103 per cent and the increase in value was 158.5 per cent. This in itself reflects something of the progressiveness and aggressiveness of the present campaign which is being waged to give the public better riding service.

Taking up the question of a proper co-ordination of transportation interests, which is the most serious question before the industry, the traction companies maintain — and with justice — that their business consists not merely in running a street railway, an auxiliary bus line or a subway, but covers the entire responsibility of providing the transportation for a given district. As such it should be merged under one responsible head and not be forced into a receivership by competition with unregulated agencies, nor be made the tool of unscrupulous politicians.

The actual purpose of a city's transportation system is to carry people who desire to ride in the quickest and most convenient manner possible, safely and at a reasonable fare. To do this three classes of public carriers have been recognized as workable.

1. Rapid transit lines, which include elevated railways, subways, those traveling over private rights of way or any adaptation of these lines, where the cars move over a comparatively unrestricted area.
2. Surface street railways.
3. Motor busses.

In a properly regulated and co-ordinated system each of these carriers has its proper place, and is made a part of a logical plan of operation.

The rapid transit line, which involves an expensive right of way, is only justified where the density of travel creates sufficient use to warrant the investment. Elevated roads cost at least four times as much as surface lines and subways cost four or five times as much as elevated lines. Rapid transit provides the speediest, most comfortable and most economical method of handling large volumes of passengers and is the solution of transportation in congested areas, as it creates new traffic levels, but it should be utilized intensively to warrant the installation expenditure and is hardly practicable in cities where the population runs much under a million. It is also true that even in large cities only a few traffic routes actually support rapid transit lines.

Some idea of the enormous crowds handled in large cities by rapid transit is evidenced by the numbers carried on the subways and elevated lines in New York City, which are probably the most highly congested lines in the country. For the fiscal year which ended June 30, 1924, these lines carried 1,611,538,072 people. Yet in spite of this enormous crowd, they only provided for a little more than half of the street railway movement in New York City, which amounted to 2,672,940,000 people over that twelve-month period. This is far in excess of the population of the entire world.

In all probability no other subject so occupies the attention of

"The Chicago, North Shore & Milwaukee Electric was one of the first to realize the possibilities of de luxe service, and the Interstate Public Service Company of Indianapolis runs sleepers between Indianapolis and Louisville — close attention to what the public utilities are doing will convince the most skeptical that, where properly protected and encouraged by community effort, they will prove to be the biggest single factor in local development"

communities as well as traction men at this moment as the place the motor bus should play in the question of mass transportation. As yet it is a new unit and as yet its proper place and function have not been fully established in the minds of either the traction officials or the public, for it has not been developed to its full effectiveness. That it has its place in the natural scheme of passenger movement is acknowledged by every progressive traction man in the country.

Much of the controversy on the subject of bus operation has been due to certain very distinct features. Bus operation which is unregulated and which *competes* with the railways, duplicating their service, is manifestly uneconomic and detrimental to community interests, but — fortunately for the public as well as the street car companies — the unregulated bus has practically run its race. This in part is due to the co-operation of the bus manufacturers, who were quick to see that the greatest good to the greatest number lay not in the operation of independent bus lines which paralleled the rights of way of the traction companies, but that the bus had a far larger field of utility in its capacity of supplementary and feeder service to the street car lines.

On this subject, J. N. Shannahan, president of the Newport News & Hampton Railway, Gas & Electric Company, and newly appointed president of the American Electric Railway Association, spoke very forcibly to the writer in a recent interview.

"Every forward looking man in the traction industry knows that the motor bus has a distinct place in passenger movement," said Mr. Shannahan. "More than that, it is going to be a vital factor in the development of such new interests as are bound to arise from time to time in the affairs of every live electric railway in the country. The flexibility of the bus, which can be changed from one route to another as needed; its value as an initiatory form of transportation in opening up new routes; the facility with which it can be extended into rural districts in order to put people into touch with the interurban lines and its desirability as a temporary expedient for transportation purposes all point to it as a valuable aid to progressive companies not alone in building up increased service on their main lines, but also in offering to the public some form of transportation and intercommunication where a company might not be justified in the enormous expense incident to laying even a few miles of additional trackage.

"The point which we, as traction men, are making an effort to emphasize, is that all forms of transportation in every community, no matter what they are, should be co-ordinated under one responsible management and that the people should look to one responsible head to solve their transportation problems. Unregulated operation of any form of transportation has an unfavorable effect on local service.

"But, in spite of the value of the bus as an auxiliary agent, it has been proved in several places with disastrous results that service on rubber tires will never replace that of rails. In the first place busses could not handle the volume of traffic which the electric railways are moving daily and they are more expensive to operate. The introduction of the bus supplies a very definite need, but it offers its greatest value in *supplementing* electric railway service rather than in superceding it."

Interesting in the support of this opinion are some of the figures which have been compiled in working out the operation of bus routes in connection with street railway problems.

In Baltimore, Maryland, a traffic count in the down town district showed that five times as many automobiles carried less than 1/5 as many passengers as street cars; that 4,130 parked vehicles not only took up all the available space and retarded traffic but also choked the main arteries in and out of the city.

A check in Grand Rapids, Michigan, during the rush hour, showed that at a certain period, 119 street cars passed a given point and at the same time so did 1,130 automobiles. To reduce it to a percentage, 9.53 per cent of the passing traffic consisted of street cars and 90.47 per cent was automobiles. The passengers carried by the street cars numbered 3,647 and those carried by the automobiles 2,094, or 63.5 per cent by street cars and 36.5 per cent by automobiles. The space taken up in the street by the 119 cars figured 4,760 lineal feet and by the 1,130 automobiles 15,820 feet. The street cars occupied 23 per cent of the space and the automobiles 3½ times as much — or 77 per cent of the space — and carried only a little more than ½ as many people. This amounted to seven times as much street space per passenger as did the street cars.

If all of the Grand Rapids automobiles had been full sized busses, they would have occupied 31,640 feet of street space and if fully loaded with people both sitting and standing would have carried only approximately 45,000 people, whereas to carry the same number of passengers by the railway only 452 cars would have been required and only 18,080 feet of street occupied.

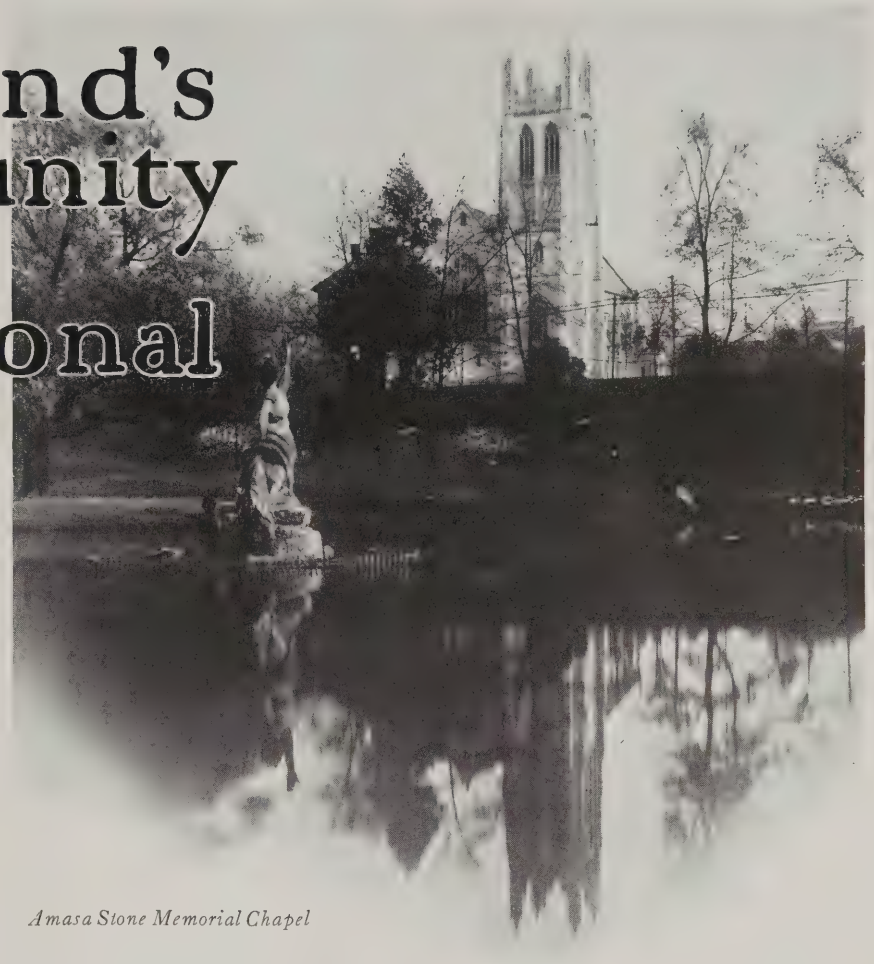
On the other hand, where busses have been properly correlated with existing service, they have proved not only practical but have filled a vital need. Louis H. Palmer, Vice President and General Manager of the United Railways & Electric Company of Baltimore, Maryland, one of the most progressive electric railways in the country, has used busses for supplementary service on his lines since 1916. "What we *should* do," said Mr. Palmer in talking to me about it, "is to *get the good out of a new thing instead of opposing it.*" Mr. Palmer runs both double-deck and single busses on his lines and finds they give very satisfactory service as part of his traction system. He also uses trackless trolleys and is one of the advocates of articulated cars if run under proper conditions. He handles two cars, each 75 feet long, with two men. As all lines in Baltimore are through routed, this works out very well.

The Northern Ohio Traction Company is another line which operates quite a fleet of busses. It has put itself in the unique position of paralleling its own route with a bus line. This company is one of those which finds it desirable to run de luxe busses over its express routes and altogether has 100 busses in operation. Some time ago its executives anticipated the bus movement and determined to use it to

Please continue on page 17

Cleveland's Opportunity *as an* Educational Center

By
Dr. Robert Ernest Vinson
President of Western Reserve University



Amasa Stone Memorial Chapel

All of the agencies in Cleveland which are concerned in the matter of the university development have found themselves very much interested in the statistical information and recommendations in the report of the Commission appointed by the Cleveland Foundation to investigate these matters during the past five or six months. This investigation was brought about at the joint request of the boards of trustees of Case School of Applied Science and Western Reserve University, which felt that an effort should be made to discover, first, how far the two institutions have been meeting the needs of this community from the standpoint of higher education; and second, if they have not been fully meeting the situation, what their needs are to enable them to do so, and while the report of the Cleveland Foundation's study has not yet been printed and communicated officially in finished form to the boards of trustees, a general summary of the report has been made public in a series of luncheons, together with the outstanding recommendations of the commission.

Of course, all of the facts presented and the recommendations of the Commission will require considerable study in detail before the result aimed at in the report can even begin to be accomplished. This is true, not only because of the magnitude of the task itself, but because of the fact that so many different interests and previously independent agencies must be considered. However, at the present time certain things are clear and I am glad of the opportunity to bring them to your attention.

First, it should be kept in mind that there are two ways of looking at the matter of higher education in Cleveland. One is that of the development of existing agencies, increasing their facilities and broadening the scope of their courses of study and activities as means may become available. The other is to consider the problem of the needs of the community and to endeavor to work out the program of the development of existing agencies in order that they may be able to do the job. The second method seems to have been the one, and wisely so, which was followed in the report of the Foundation study.

No one can look back over the history of the last 35 or 40 years in the development of Case School of Applied Science and Western Reserve University without becoming aware of the fact that these institutions have done a remarkable piece of work in this community in a number of fields with which a great university must be concerned, and it would be entirely possible for the two institutions to proceed in the future as they have done in the past on a limited scale, giving instruction of an excellent quality, and yet at the same time because of the growth and development of the community in which they are located fail utterly to meet in any adequate fashion the needs of such a community for university instruction. Such a process would only increase the disparity between the activities and accomplishments of these institutions, and the needs of the community, which have already become quite apparent to even a casual observer.

The fact seems to be that while the city of Cleveland and this entire metropolitan district has established for itself an enviable reputation in the development of its primary and secondary schools, it has never yet

as a community faced the question of the desirability and practicability of erecting here a university which should be in all its parts commensurate with the needs of this community. I should say, therefore, that the first item to be considered setting forth the opportunity of Cleveland as an educational center lies in the fact just mentioned, that this community as a community has never seriously approached this question. On the other hand, when we consider the rapid growth of the high schools of the metropolitan district, the fact that students are being graduated from public high schools and private preparatory schools in this district by the thousands every year, it is impossible for us to overlook the fact that, if a great university is to be considered in any sense as a producer of an intelligent and cultivated citizenry, there is a wealth of raw material offered by this community which under the present circumstances must be largely wasted for this final purpose because facilities have not been provided by which this raw material can

Dr. Robert Ernest Vinson
President of Western Reserve University

be turned into the finished product. It is needless to say that this cannot be done by other institutions elsewhere for the simple reason that it has been found that if institutions of higher learning are not made available, the vast majority even of qualified young men and women do not as a matter of fact attend such institutions. There is in and around the city of Cleveland an available population of possible university students equal in number, and certainly equal in ability, to the population of many states of the Union, and this younger generation who are to be the future citizens of this community have as much right to look forward to university advantages within a reasonable distance as any others.

I wish also to call attention to a general spirit which is sweeping over the country, and which has manifested itself in other metropolitan centers many of them of far less population and less importance industrially and commercially than the metropolitan district of which Cleveland is the center. It has been pointed out, for instance, by the Commission of the Cleveland Foundation that if the city of Cleveland had provided proportionate opportunity for its young people, as is the case in several smaller communities, there would be today in Western

"Educationally the Cleveland metropolitan area is by no means as self-contained as it is commercially and industrially"

Reserve University and in Case School of Applied Science not less than sixteen thousand students, or in other words, four times the number at present attending both institutions. Sooner or later this community will seriously face this question and will make provision in this direction through the exhibition of the same sort of community spirit which has already manifested itself so signally here. I feel sure that when this time comes the two institutions which I have named, and others which are already existing and flourishing, will be glad to enter into this movement in a co-operative spirit.

I have recently read a little booklet issued by one of the banking houses of Cleveland under the title — "Where the Iron of the North meets the Coal of the South" and the booklet further goes on to indicate that in the great banks of Cleveland the wealth of the community has been mobilized so that this meeting of the iron and the coal may be carried through from the raw material to the finished product. The greatness of Cleveland industrially and commercially is thus accounted for either by the presence or by the availability through transportation of the raw materials of industry and the ability upon the part of the citizens of this community to furnish the capital necessary for their transformation. This makes Cleveland commercially and industrially self-contained and able not only to manufacture a sufficient amount of finished articles for its own consumption, but to have a large surplus to contribute to other parts of the world. It is in both of these aspects that the commercial prosperity of this community consists, that is, both in satisfying its own home consumption needs and being able also to contribute a surplus to those who are not so fortunately placed.

Educationally, however, as has been thoroughly demonstrated in the report of the Cleveland Foundation, the Cleveland metropolitan area is by no means so self-contained as it is commercially and industrially. A relatively smaller percentage of the capable and prepared young men and women of this community go to college than is true of the country generally or other cities of anything like equal importance. We do not produce annually a sufficient number of trained men and women to care for our own needs and consequently must import from the outside, thus leaving the balance of trade in this respect always against us. The whole object of the present movement is to endeavor to develop the local situation so that we may be in educational matters somewhat upon the same footing as we are in other directions, largely self-contained and contributing our portion to the general advancement of civilization. Everything requisite to this end is to be found in Cleveland and can be made to produce this result by centering our community interest and attention upon it.

"If the city of Cleveland had provided proportionate opportunity for its young people, as have other smaller communities, today not less than 16,000 students would be attending Western Reserve University and Case School of Applied Science"

Above — The new Lakeside Hospital. Below — W. R. U's new gymnasium

"Never, as a community, has Cleveland faced the question of the desirability and practicability of erecting here a university which should be in all its parts commensurate with the needs of this community"

Toy Headquarters *Now Located* in America

By
Uthai Vincent Wilcox

Toy Making

According to data collected at the biennial census of manufactures for 1923, the establishments engaged primarily in the manufacture of toys, games and playground equipment, not including children's carriages and sleds, playing cards and sporting and athletic goods, in that year reported such products valued at $54,798,310, together with other classes of products valued at $1,268,122, making a total of $56,066,432. The rate of increase in this total, as compared with 1921, the last preceding census year, was 58 per cent. — *Bradstreet's*

Santa Claus is becoming naturalized and a good American citizen. Years ago, he had his principal factories in Thuringia, Germany where most of his dolls were made; in Nuernberg-Fuerth, Bavaria, where his metal and mechanical toys were manufactured, and in Erzbirge, Saxony, where his shops specialized on wooden and papier-mache toys. Now his games are being made in Springfield and Salem, Massachusetts; and his metal toys throughout Connecticut, and all sorts of toys and Christmas specialties all over the United States.

The Department of Commerce has recently had a survey made of toy factories and makes this official report — that the majority of the toys of the world are being made in this country. Warren L. Hoagland, chief of Secretary Hoover's new "Specialties Division" of the Bureau of Foreign and Domestic Commerce, bases his statement that the United States now fills the world's Christmas stocking on a comprehensive study of all the factors that go to make up the toy industry. Very recently a report has been received from Assistant Trade Commissioner O. S. Payne, from Prague, Czechoslovakia, after he had made a personal and extensive study of the German toy industry.

American Toys are of Educational Value

It must not be supposed that the toy industry in this country is of overnight development. It has been building for more than three score years. And, taking for illustration one great game factory in Springfield, Massachusetts, it is true that the educational world and the world of home life, of parent and child are deeply indebted to such plants. Educational toys have revolutionized education for little children in schools, and have supplied educational amusement in the home. Christmas shoppers have taken kindly to such toys and the demand for them is strong and evidently will continue to be. By a strange coincidence it was immediately following the Civil War that the greatest game factory in this country got its real start, just as the entire toy industry has been given a new impetus in this country following the World War. While some of the toy trade went back across seas after the war closed, American manufacturers have continued to design new toys and have built special machinery that has brought the cost down. On the other hand, Government business agents in Germany in a special report note that foreign orders for toys are being canceled because of the increased cost of production and scarcity of raw materials which have tended to force German costs up to the level of the world market.

"It would seem very likely that Germany has now lost the advantage that it appeared to possess when the mark was declining rapidly, and American manufacturers need not fear such severe competition from Thuringia, Nuremberg and Erze-

bridge as they have been experiencing," Mr. Payne reports to the Department of Commerce. In the three main centers of the German toy industry, approximately 80 per cent of their output has been exported, but since costs of production have increased and the manufacturers are unable to give fixed prices except for goods already on hand, the trade is falling off rapidly.

Factories Near Raw Materials

There is a healthy sign in the United States which stands out in contrast to the situation in which the German manufacturers are finding themselves, with scarcity of raw materials. The American manufacturers are establishing factories for metal toys in the very heart of the metal producing fields. They are establishing wood-working plants for games and rocking horses and wagons and doll carriages near the great forests of the East and West, and oftentimes in co-ordination with the furniture factories to use up what would otherwise be waste.

While metal toys are increasingly used in America it is in the making of wooden toys that the American factories enjoy the greatest supremacy. The number of these toys turned out is almost beyond belief. A big pine tree lasts only an hour when it gets into one of the toy factories, and then, presto, it appears in the form of rocking-horses, dolls' furniture and playhouses, enough to fill a room.

The whole toy industry is sensitive to changing condition. For instance, the rocking-horse was once the greatest seller of all. It still sells well but in lessened numbers owing to the modern custom of living in tiny apartments, where a real boy's size rocking-horse would occupy the space required for something much more utilitarian. Rocking-horses are now for the farm house and the suburban home.

There is a town in Northern Massachusetts, commonly called Toy Town, because toy making is the chief industry of its six thousand inhabitants. It appears on the map as Winchendon and it is recognized as the train passes by a huge rocking-horse seventeen feet high, standing alongside of the tracks. Most of the rocking-horses sold come from this town. Enormous quantities of lumber are used while butchers far and wide are looked to for cowhides to cover the bodies and for cow tails to make the waving manes. These rocking-horses are practically machine-made. A block of wood is fed into the machine, the power knives carve it into the exact shape of a wooden model. The legs and heads are made by another machine but the nostrils are done by hand. The painting is done by dipping into a vat of thin color. The dappled gray is obtaind by means of an air pump which sprays liquid black over the white paint. Glossy coats are produced by varnish. Cowhide coverings are given the more expensive models and plush is used on an intermediate grade. The eyes of glass are slipped into sockets cut by the machines. The saddles in various designs are added along with the rockers. Such is the evolution of the rocking-horse.

The American Doll Now is Most Popular

Not only in rocking-horses and mechanical toys has the American manufacturer gained supremacy in the markets of the world but also in the making of the great toy staple — the doll.

One big concern has come out with dolls entirely of wood and thus practically indestructible. They have jointed arms and legs and their faces are very handsome and well liked by the girls who called for them in increasing numbers last year. This year will see a wider distribution of this type of doll.

America is the only country which makes dolls with composition heads. These heads are of American invention and are fashioned by a secret process. It is aimed to make them truly unbreakable, while light and life-like. The molds are made of starch and molded from designs which have been prepared by real artists. Artists also decorate them. One paints the eye and another the facial expressions, such as the shape of the lips.

The bodies are made of cloth. Here American genius for quantity production is evident again. Fifty or more squares of cloth are placed one on the other and all are cut by the same motion and the cloth is so utilized that there is almost no waste at all. Electric sewing machines are used to put them together after which they are stuffed with cork or excelsior.

Comparatively few French dolls are sold in this country. They are a mere name. They are pretty and wonderfully dressed but the girls who beg their mamas to buy dolls are shown unmistakeable preference for the American-made product, not from feelings of loyalty to their country but because they liked them best. Other countries of the world have shown the same partiality.

Toy Making Has Come Out of the Kitchen

Uncle Sam, through the Department of Commerce, has counseled with Santa Claus — the toy industry — as to future development, so that now the making of toys is out of the kitchen stage and rapidly becoming a vital part of big business. Specialized machinery and clever tools have made great changes. This works for quantity production, minimized cost and admits for expert study to improve the product.

Some of the most talented artists as well as clever inventors and expert mechanics and engineers are now employed in the game and toy industry in this country — always looking for a way to improve and strengthen the educational and artistic appeal and influence—as well as the amusement "pull" of their product. The cost of hiring these great artists and inventors and engineers and scientists is absorbed in the minimized overhead and economies of quantity production.

For the reverse, look at Sonneberg, the center of the German doll industry. The majority of those employed are home workers. They design and make the toys in their own homes and sell them to the dealers and exporters. The price is based on their own calculations. It is estimated that there are about 30,000 of these home workers who make toys and the Christmas tree decorations. The cost of raw materials has been rising constantly, especially in the case of such imported raw materials as textiles, rubber, mohair, and colophony, as well as kaolin and lignite from Bohemia, which is used in the manu-

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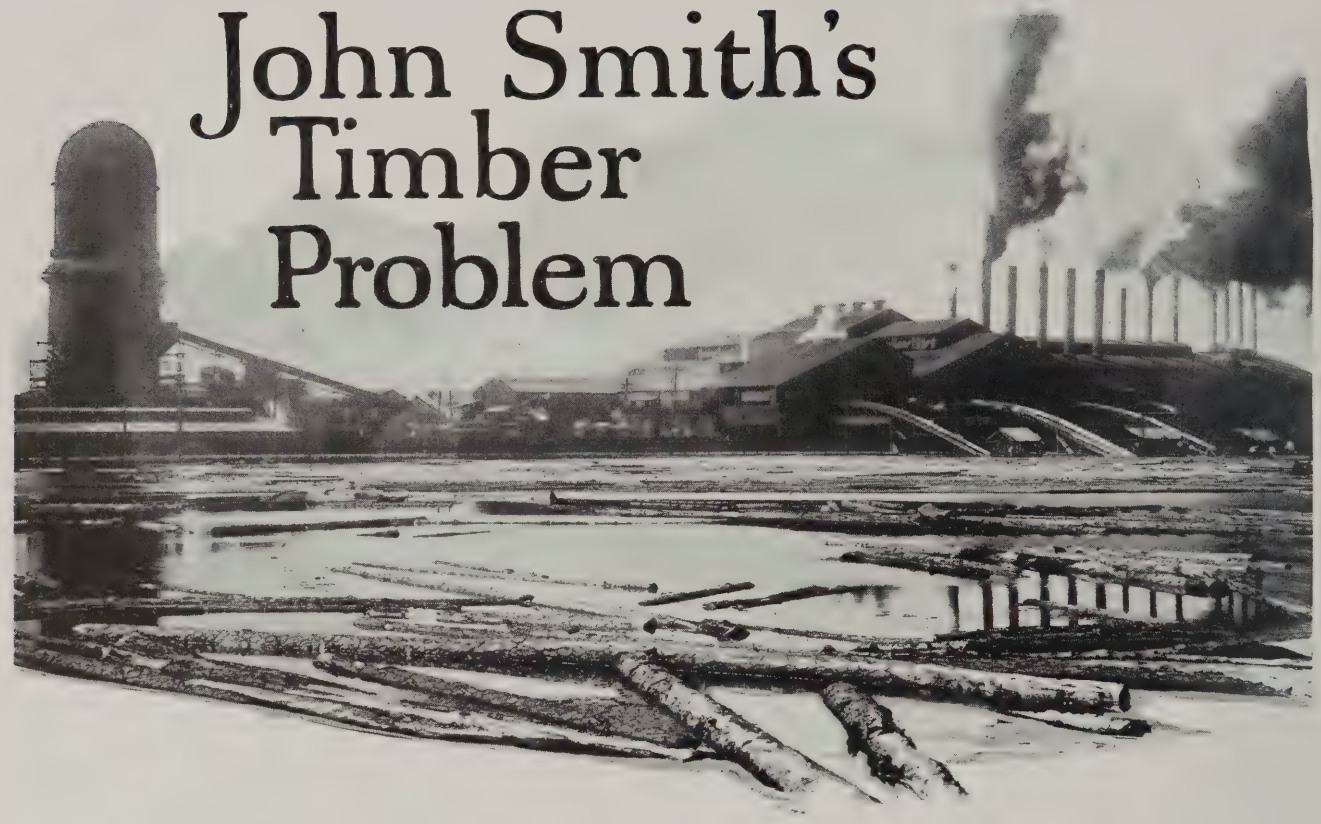
John Smith's Timber Problem



By R. S. KELLOGG

Chairman, National Forestry Program Committee

JOHN SMITH, timber user anywhere in the United States, was a particularly fortunate fellow up to ten or fifteen years ago. He could select from a wide variety of woods and get the sizes and grades that he thought he needed at prices which averaged little more than a highly competitive manufacturing cost added to a raw material provided by nature in rich abundance. Being as human as the rest of us, John used wood for every conceivable purpose in careless and ignorant fashion — even though there were times and places where the smoke of forest fires obscured the midday sun. There always had been wood a plenty, so why worry? The lumber trust could stand it if there were a fire in its great timber holdings, while if the fire happened to be on some of the hundreds of millions of acres of Uncle Sam's lands in the West, it was too far away to be of any interest at all to "John."

So John Smith went along in happy fashion, until, in 1907, he set a world record as a user of forest products. In that year it took 525 board feet of lumber, 130 shingles, 42 lath, 20 barrel staves, 2 railroad ties, and a cord of firewood each to satisfy every member of John's numerous family. He still thought that the Government ought to do something to the big timberland owners, who, he was certain, were getting outrageously rich at his expense. His suspicions in this direction also received frequent encouragement from various gentlemen in Congress and out, whose ability to make noise was inversely proportional to their knowledge of any subject they discussed.

But by 1920, John's per capita consumption of lumber was 200 board feet less than it had been thirteen years earlier, and it cost him about twice as much, so he began to do a little investigating on his own account. He is a pretty fair-minded sort of fellow when he digs out facts for himself without help from any of the noisy gentlemen, and during the past four years, in addition to discovering why he isn't getting more boards at lower prices, John has done something to make certain that his grandchildren will also have a few boards and shingles and barrel staves and cross ties and various kinds of paper and such like.

By digging into Census volumes and Forest Service bulletins, and the reports of Congressional committees, and talking with foresters and reading the newspapers and magazines, he has finally sized the situation up in about this fashion as to the what and why and how and when of the timber problem in the United States:

John has found out that nature originally provided the United States with the most extensive areas of the most varied, accessible and useful timber stands of any country on earth, and that such a tremendous and easily convertible natural resource was one of the greatest factors in the agricultural and industrial development of the country. The foresters and the timberland owners estimate standing timber in the number of board feet that it will presumably yield when put through a sawmill, and timberland areas in acres, so that the figures for any region run to totals not easily conceived. These somewhat technical gentlemen also say that there are five great forest regions in Uncle Sam's domain — the Northern, the Southern, the Central, the Rocky

"The per capita consumption of lumber was 200 board feet less in 1920 than it had been thirteen years earlier and it cost twice as much"

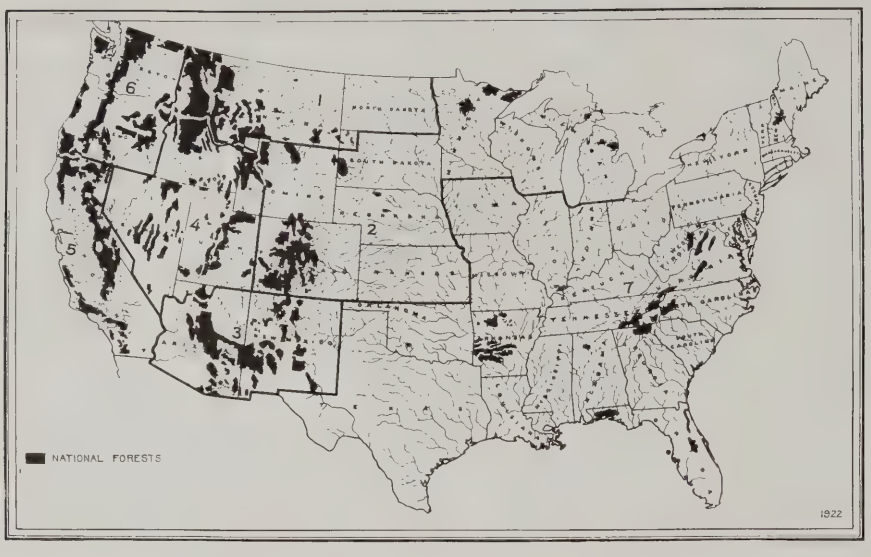
Mountain, and the Pacific Coast, with a great intervening treeless prairie and plains region separating the latter two from the three former, as may be seen from the accompanying map.

Nobody knows how much timber there was standing in the United States when Columbus made his historic voyage, but the experts tell John that it was more than 5,000 billion board feet on an area of something over 800 million acres, or some 40 per cent of the total land area of the United States. These same chaps estimate that the Northern forest, made up very largely of the pines — of which the white pine was by far the most important — once contained about 20 per cent of the country's total timber stand; the Southern forest, where the yellow pines grew luxuriantly, an equal amount; the Central hardwood area some 27 per cent; the Rocky Mountain forest, scattered over the higher slopes and plateaux of that region, about 7 per cent, and the Pacific Coast forest, relatively small in acreage, but far beyond all other areas in density of coniferous stand, making up another 27 per cent of the more than 5,000 billion board-foot total for the country.

John Smith discovered that while every colonist and pioneer on the eastern seaboard had to hew his way into the timber to get land upon which to support a bare existence, the lumber industry as such really had its beginnings in the water-driven sawmills of small and crude type along the rivers in Maine, and that seventy-five years ago there were more than 200 such little mills on the Penobscot River above Bangor, where today there is practically none of any kind.

John's researches also disclosed that today according to the foresters there is but little more than two-fifths of the virgin timber standing in the United States that there was when the white man first began his onslaught, and that of the three-fifths which has disappeared, as much has gone up in the smoke of forest fires as has gone into boards and railroad ties, the kind of paper upon which this story is printed, and a multitude of other articles; the result of the accounting to date being that in the Northern forest there is now less than one-third of the original quantity of timber, in the Southern forest only half of the former magnificent stand, with the Central region trailing along with a scanty one-fifth of its first supply, the Rocky Mountain region doing better with three-quarters, and the Pacific Coast showing up relatively the best with nearly four-fifths of the original stand, because until recent times the lumber from that territory has not had a wide market in the great eastern consuming districts.

John has found it particularly illuminating to make a chart of the lumber production in the most important groups of states during the past seventy years. He notes the successive rising to peaks of production and the subsequent much more rapid falling off in the Northeastern States, the Lake States, and the Southern States. He sees that only in the Pacific States is the production curve still rising, and he is beginning to inquire whether before long that curve will also reach a peak and drop rapidly as the others have done. If this is to happen, he has imagination enough to see that the demands of a steadily increasing population may compel his grandchildren to pay a good deal more for



"The per capita consumption of lumber in 1902 — the peak year — was 525 board feet of lumber, 130 shingles, 42 lath, 20 barrel staves and two railroad ties and a cord of fire wood"

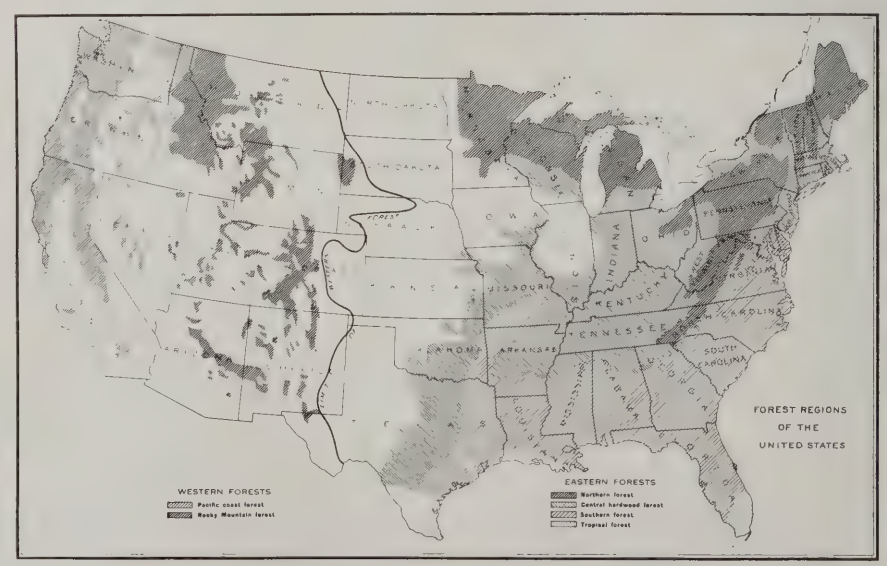
boards than he has done, unless something happens to make it possible for more trees to grow in other parts of the country. This causes John to consult once more with the foresters and the timberland owners who know where and how and when trees grow, and this again leads him to ask, "Who owns the remaining trees and who is trying to see that more trees do grow?"

One of John's first discoveries when he started out to learn something about who owns the forests in the United States was that for a hundred years after the adoption of the Federal Constitution, it was the settled policy at Washington, approved by the people, to get all the natural resources of the country into private ownership as rapidly as possible — on the theory that this was the best means of promoting national progress.

On this theory, the bread basket of the United States — the rich farm lands of the Middle West — was homesteaded by settlers; nearly as large an area, including both timber and farm land as was granted to settlers, was given to corporations to encourage transcontinental road building; great tracts of timberland were sold at from $1.25 to $2.50 per acre, and 100 million acres of the public domain was given to the states, which they disposed of to secure funds for schools and other public purposes.

While John now inclines to the opinion that some of these largesses were perhaps too generous and too hasty, he nevertheless remembers that many of his relatives were pioneer farmers in the Mississippi Valley on land given to them by Uncle Sam, and that their houses were built at small cost with splendid lumber that came from the Lake States pineries. Moreover, he does not overlook the part played by the railroads in making this great development possible. Even if mistakes were made, some frauds perpetrated, and some resources wasted, he sometimes thinks that the total net result wasn't so bad after all.

However, he is very glad that thirty-three years ago there was a reversal of public sentiment, and Congress passed a law empowering the President to withdraw timberland in the public domain from entry or sale. John sees now that this was the most important single step that has ever been taken toward the protection of his timber supply and has resulted in the establishment of a hundred million acres of National Forests, chiefly in the Rocky Mountain and Pacific Coast States. The Forest Reserve Act was followed twenty years later by the first Congressional appropriation for the purchase of forest land on the head waters of navigable streams, which, with subsequent annual appropriations, has now carried the total of such additional National Forests beyond two million acres in the White Mountains and the Southern Appalachians. Still further, in 1922, Congress authorized the exchange of National Forest land or timber for privately owned land within the boundaries of National Forests, thus making it possible for both the Government and the private owner to block up their holdings for better protection and operation. Several of the states have also followed the Federal example, notably New York, Pennsylvania, and Wisconsin, so

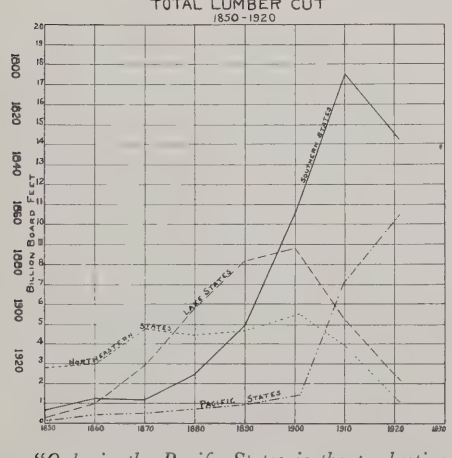


"There is but little more than 2/5 of the virgin timber standing today that there was when the white man first began his onslaught, and of the 3/5 which has disappeared as much has gone up in forest fires as into boards, paper, etc."

"Of the present forest area of 470 million acres, over twenty per cent is now in some form of public ownership"

that there are also several million acres of forest land in state ownership and a small beginning in forest ownership by some towns and cities.

Altogether, therefore, John is very glad to learn that of the present area of 470 million acres of forest land in the United States over 20 per cent is now in some form of public ownership, that this land carries about 30 per cent of the remaining timber stand, and that this whole area is permanently devoted to the growing of timber according to the best practices that the foresters are able to employ. He has discovered also that there are nearly 150 million acres of farm woodlots in the United States with an annual value of product equal to nearly as many dollars, and likewise that some 200 million acres of forest lands in larger private holdings, which contain perhaps three-fifths of the total merchantable timber stand, are so widely scattered, of such diverse character and held by so many competing owners that he isn't scared any longer by the political bugaboo of a "lumber trust." Being somewhat of a business man himself, John knows that ownership of strong character is necessary for the growing of a long-time crop like timber, and he notes with increasing pleasure that more and more of the timber holding corporations are employing foresters and making a start toward putting their lands upon a continuously productive basis.



"Only in the Pacific States is the production curve still rising"

As a matter of fact, John has come to realize that real forestry is a vastly different thing from the sentimental talk of "Woodman, spare that tree." He has learned that real forestry means the growing and using of timber crops, and that when fit to cut, trees should be cut and used for the satisfaction of human needs, the same as wheat or grain. He has no fault to find with landscape artists, with roadside tree planters, and the advocates of municipal, state, and national parks — he knows that these are all good things — but he also knows that only through the application over a long period of time of definite scientific principles to the growing and using of timber crops will he and his successors be able to get the various forms of timber products that will always be needed in this country.

John has discovered that just as a farm crop may be destroyed or greatly reduced in value during a single season by drought, storm, or bugs, so a timber crop requiring anywhere from thirty to one hundred years to grow is subject during the entire period to the hazards of fire, wind, fungi, and insects. Like any other prudent business man, he is hesitant to make a personal investment in ventures of this sort, the returns from which he is not likely to live long enough to enjoy. Moreover, he finds that these returns will probably not exceed six per cent on the investment and may be quite a little less, so he has definite and to him convincing reasons for the belief that timber growing on a large scale will be chiefly undertaken by corporations which have large plant investments to protect through a dependable source of raw material, and by the State and Federal Governments, which, with their ability to obtain money at minimum interest rates, are particularly charged with the duty of protecting the national resources for the permanent benefit of the entire people.

John has been talked to by all sorts of enthusiasts with panaceas, but he has come to be very skeptical about cure-alls. He knows from his own experience that nothing is saved until it is worth saving, and while he

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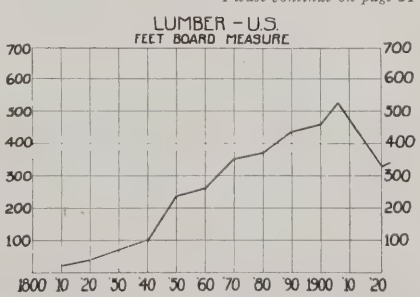


"Real forestry means the growing and using of timber crops the same as wheat or grain"

Fitting the Manufacturing Plant to the Peculiarities of Today's Problems

By E. J. Kulas

President, The Midland Steel Products Company, Cleveland and Detroit

(The world's largest manufacturer of automotive frames)

We are assuming right at the start that business — that is, the business of manufacturing, at least in certain phases—is different today from what it used to be, and there seems to be many reasonable grounds for this belief. Naturally, that provokes the question, "Just in what way is manufacturing different? — and what are the peculiarities of today's problems?"

Perhaps we may conclude that the problems of today are very much like those of yesterday and that things we thought were peculiar to this time are only inherent problems of all manufacturing businesses at any and all times.

Some of the manufacturing problems are believed to be directly attributable to the high prices of raw materials and there are some bold enough to say that there is no real relationship — or if there is one, that it is a very distant relationship — between the cost of certain raw materials plus the cost of labor, overhead and other costs, plus a fair profit and the actual market price of such materials. Of that I can neither affirm or deny, but to those who are facing costs it is a real problem. These hold that the fabricator of such raw material is a defacto selling agent of the raw material maker who could not dispose of his bulky wares without the help of such fabricators and that, therefore, more consideration should be given the said fabricator and opportunity afforded him to purchase at better prices than those which prevail.

Then, there are some to whom freight rates spring into mind as a problem, who perhaps forget that all costs have risen and that therefore we must reasonably expect to pay higher hauling costs.

Granted that the two items mentioned may be problems of today, they are certainly not peculiarities of today's business. They have been with us for a long time and are likely to stay with us.

To my mind the outstanding peculiarity of today in manufacturing, at least in the automobile parts end of it, is the change in manufacturing methods necessitated through the general adoption of the basic idea of quick turnover. Quick

E. J. Kulas

turnover has assumed as great an importance in modern manufacturing success and safety as it has been conceded in retailing. Indeed, we may say that in manufacturing, it ranks higher today in importance than it has ever ranked among its most enthusiastic retailer advocates, and that is saying a great deal.

Of course every shrewd manufacturer has always recognized the advantages of quick turnover. Never has it been lost sight of, but today, quick turnover stands at the very top of the list and in almost every big factory, there is a highly organized staff of executives whose duty it is to blazon on the minds and hearts of every other executive, by precept, by example, and by the big unstuffed club, if necessary, a thorough and immediate appreciation of the wisdom of bowing before the demands of this freshly scraped, painted, finely modeled, and highly illuminated business deity who is labeled "Quick Turnover." And the facts are, that if quick turnover and the new methods that it is entailing is not welcomed with open arms, and if the processes and factory equipment, mental and physical, are not tuned up to the quick turnover idea, the results are likely to be discordant, unharmonious, unprofitable for all concerned.

Because — perhaps of the tremendous sums of money involved in the business — the motor car industry has always been a proponent of the quick turnover idea, but even the motor car business sees quick turnover in an entirely new light today and is aiming at a rate of turnover undreamed of a few years ago. The keynote of today's idea is to make the shortest possible time between the receiving and shipping room doors. In one plant, the receiving room for certain materials is actually the assembling department. The parts are unloaded from the motor delivery truck and shot down a chute or carrier and immediately assembled.

It is clear that the ideal, so far as the motor car maker is concerned, is a continuous stream of material coming in one side of the plant and moving out with equal flow on the other side. The obvious result, where these conditions are approximated, is an amazingly low inventory of unfinished and finished merchandise and a correspondingly small tie-up of working capital. That this result is highly desirable for everybody is of course easily recognized. That great economies are effected by the maintenance of capital in liquid yet working condition will not be denied.

This idea of quick turnover is not simply a credo but a fact, as nearly as the manufacturer can make it so.

The Result of "Quick Turnover"

One great automobile manufacturer regards its new viewpoint in this respect as of first importance. It has multiplied the power of its capital many times by the absolute adoption of the quick turnover idea as its basic business principle. The savings effected served to point the way to still other savings which have been reflected in greater earnings and in lower prices to the consumer.

In this company a premium is placed upon low stocks both on order, in transit and in the factory. It is considered that a thirty days' supply of any material is a maximum supply. Having more material than that on hand is deemed a cause for immediate investigation of any department. At the end of each working day an inventory is made of the exact quantity of material in terms of a day's full production, that is, whether materials are available for ten days, five days or one day. A study of this firm's daily inventory showed an amazingly large number of items with only two days' supply ahead.

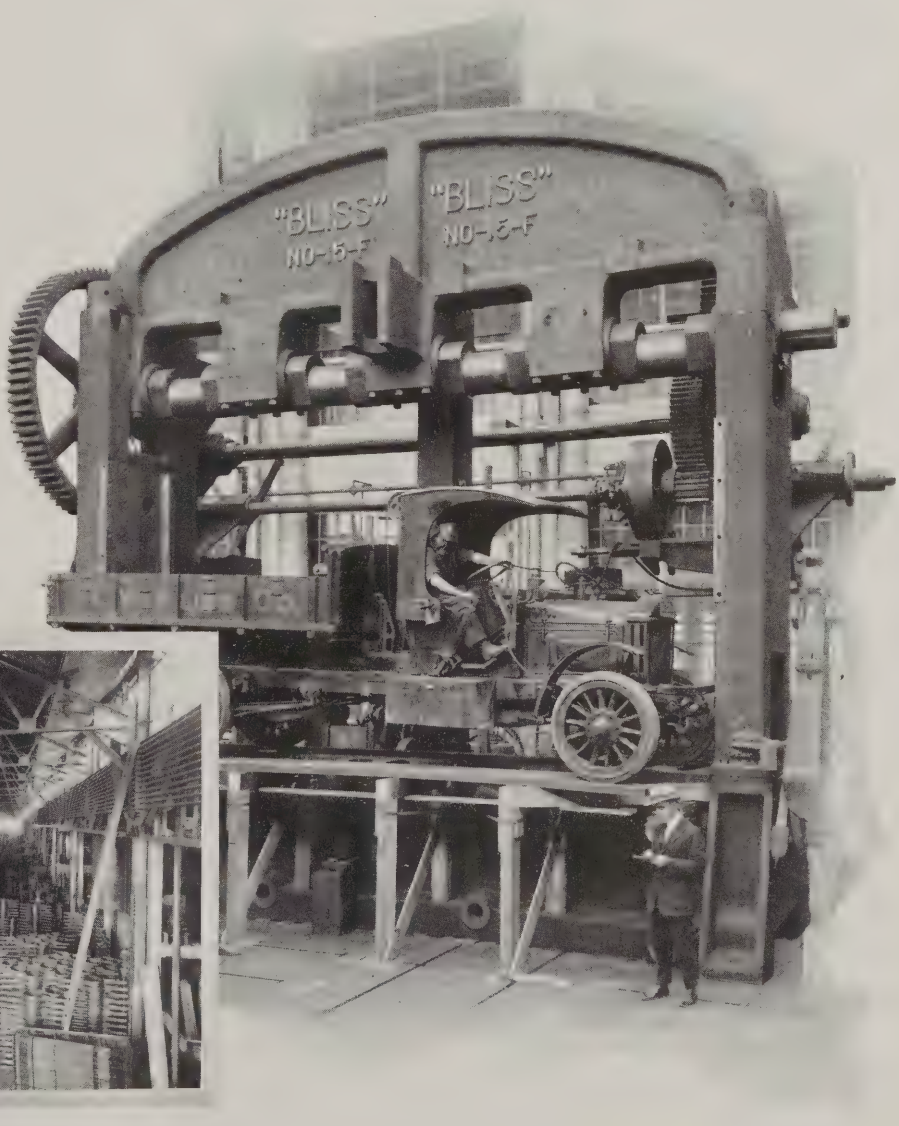
Yet this condition is not considered dangerous as it might have been rated years ago. Things become obsolete quickly in a large factory. The danger of having dead stock is considered far more formidable. According to an executive, an item on which 42 days supply was shown had been investigated and systems worked out so that a 42-day supply could not occur again.

This indicates the trend of the new policy which is bringing about a new set of conditions among vendors of parts to meet the situation.

The "Release Authorization"

Another development which is a logical outcome of the quick turnover idea is the "Release Authorization." Its makers consider it one of the best ideas their Purchasing Department ever hit upon. An order is placed, based on longest price protection possible, for a quantity of materials to be released as needed. The vendor who gets such an order protects himself in his purchases, but no actual shipments or manufacturing is authorized except by "releases" and then only for thirty days' supply.

The great task of the organization just referred to, is to keep down obligations. That is much easier said than done. The larger your business the easier it is to see the necessity for it and to say it, but the harder it is to actually accomplish it. Buyers for this company are continuously trained to this idea of



"No manufacturer can afford to tie up his hopes and those of his customers who depend upon him for production in a single machine"—so that this great press is duplicated in the Cleveland plant and by presses of similar type and capacity in the plant of the Detroit Pressed Steel Division, The Midland Steel Products Co.

keeping down obligations, so that a typical month showed outstanding orders for only $128,000.00 worth of material with a business of several millions a month.

It would seem at first blush as if the low inventory idea would raise express charges enormously, but by careful records and close watching it has had just the contrary effect. In one month where millions of dollars' worth of merchandise were received express charges amounted to only $17.33.

Still Other Savings

This low express expense is attained by making each buyer responsible for the delivery of his particular material. The items must be supplied as needed. That is his job. Sometimes material will go bad in which case an express shipment may be considered unavoidable. But freight normally takes care of all requirements as all material movement is planned ahead.

According to this company's experience, nine-tenths of all telegrams and long distance calls can be dispensed with and the same result accomplished by letter if you act when you think of it first. Men are trained to think and act.

Again express expense is safeguarded by holding one man responsible for express charges. An express charge will not be O. K.'d by him unless it is shown to have been positively necessary.

The plan of carrying a low inventory has developed among buyers a keenness and interest not apparent when larger orders were placed. The man who knows he hasn't much material ahead follows up himself. He is on his toes every minute. He doesn't go to sleep and suddenly waken to find a shortage. One company claims never to have experienced a shortage since the policy was adopted.

The fundamental idea of the whole plan is embraced in the idea that they want suppliers to "come and go" with them on production. The two big errors in buying for a manufacturing plant are "not enough" and "too much." One or the other is responsible for many manufacturing troubles. The quick turnover idea is eliminating both these troubles in many plants.

Men today are beginning to realize as never before perhaps, the fact that a piece of iron, of bronze, of steel, of rubber is only a dollar in another form. They have not realized it in the past, or they have not acted as if they realized it. Today control of materials is becoming a highly specialized end of the business, and the buyer realizes that the plant of the supplier or vendor of parts is really a part of his own plant, so far as the actualities of business are concerned. It is to him an originating, contributing unit. It is an outside unit and must have the same producing schedule as the inside producing unit, otherwise the inside and outside groups will not be in mesh, and you have *unbalance* — a condition that more often than not is only fully brought to light about the time the receiver steps in.

The "Quick Turnover" demand of the automobile manufacturer, which is increasing in its intensity daily, places a great responsibility on the parts manufacturer. Thus the well seasoned, well organized supplier is finding his problem of selling the automobile manufacturer simplified, since ability to meet the "Quick Turnover" requirements of the automobile manufacturer is given equal consideration with price. In some cases, it is given even more consideration.

The Effect on Business Relationships

The new condition cements the supplier and the manufacturer more closely; fewer changes in sources of supply are being made. One of the largest automobile manufacturers has purchased 46 per cent of its material for ten years from the same sources of supply, their reason being, that in each case, the old source of supply knows exactly what is required and has built and trained his organization to meet the company's demands.

Now, what does this new condition in industry mean? What shall we do to fit our plants to it? Does it require anything to be done?

First, I can speak definitely only for the branch of the motor car industry with which I am identified. To that branch it means the need for highly organized plants built for large production and capable of the utmost flexibility in production, manned, financed, managed and equipped with a view to keeping in perfect step with the most advanced phases of the industry it serves.

In our own case it has meant the duplication of important machinery at both our Detroit and Cleveland plants with the idea of forestalling any possibility of deliveries slowing up through breaking down of equipment or other plant troubles. Our Cleveland plant and our Detroit plant are equipped to keep the raw material moving into finished parts and on to the automobile manufacturer with a minimum inventory in either raw or finished material ourselves.

It has meant the equipment of our own tool room for the manufacture of dies and special tools to avoid delays. It necessitated our own research and testing laboratories, to constantly check materials and collaborate with the steel manufacturers to produce special steels possessing the chemical and physical characteristics necessary for successful metal stamping and drawing.

The car manufacturer desires that the vendor of parts be prepared and ready to "come and go with him in production."

The Price

That means he must have the flexible facilities, the flexible organization, the flexible mind, the necessary capital plus an inflexible purpose to make his products up to the highest standards of quality. He must be dependable, responsible and adequate in size. He must operate efficiently and make a profit. He must be able to regulate the flow of parts to meet the car builders' needs, and his equipment must be equal to maximum needs. If through duplication of plants and equipment at manufacturing centers he presents a safeguard through offering a double source of supply, he is, of course, in an excellent position to meet the needs of his industry.

What shall we do to fit our plants to the peculiarities of today's requirements? The general answer is, of course,that up-to-the-minute production methods, production machinery and ample capital must be available, or you are out of luck. The supplier of parts cannot shift responsibility; the supply must be forthcoming where and as wanted.

Solving The Transit Problem

Continued from page 4

their advantage. One of its activities includes an express motor coach line between Akron and Cleveland.

In Lansing, Michigan, the Michigan Electric Railway is using busses very successfully as feeders. These busses form a network over the city and connect with the car lines. Lansing is in need of good transportation on account of its large manufacturing plants, which include that of the Reo Company and one of the Durant factories. These companies have a daily movement of thousands of men and tripper busses handle much of this crowd in the peak periods.

Altogether about 150 of the traction companies are operating busses and find it to their advantage, although in themselves the busses may not be showing the direct returns, even at a ten-cent fare. The life of a bus is about four years, whereas a car lasts from twenty to thirty years. Conservative operators charge off 25 per cent a year for the cost of the bus. Busses work out best on the short haul but they cannot be operated as cheaply as a street car even in flat country, whereas in a hilly country the expense is increased.

It is difficult to prophesy the future of the motor bus, but it has taken a strong hold on popular favor. The double-deck motor bus, which is so familiar to those who visit New York City, is one of its most attractive features, and under efficient management has played a big part in passenger movement even though analysis might determine it as uneconomic from the standpoint of street congestion. London, England, is famous for its motor busses, although a large part of the traffic congestion at Trafalgar Square, Charing Cross and Picadilly Circus is due to bus transportation.

In this country, with our inherent love of luxury, we are going a step further in bus construction. The latest output of the bus manufacturers is the "motor coach," which is a side door sedan or an end door chair car as the case may be, with a smoking compartment in the rear, a luxury unthought of five years ago.

Only second to the difficulties which present themselves through lack of co-ordination of interests is that of traffic congestion. Fundamentally, this is caused by the fact that cities were laid out and street widths determined under entirely different conditions from those which now exist. Actually, traffic congestion is rendered more acute by standardized business practices which throw on the traction companies morning and night peak loads which must be cared for under emergency measures, inasmuch as it would be impossible for any street railway to constantly maintain equipment and right-of-way which would provide for such mass transportation. Physically its greatest deterrent is the great number of automobiles which block progress.

There is a great forward movement among students of traffic congestion to bring about immediate relief in facilitating mass transportation by eliminating parking privileges for automobiles in urban centers and where traffic congestion is likely to occur. As this difficulty increases and parking becomes prohibitive, there will be a growing tendency on the part of car owners to turn once more to the electric railways for transportation. This practice is already spreading in the large cities where the problem of passing through the congested district is becoming increasingly difficult for the automobile owner. Curb parking is gradually being eliminated. It cannot be continued unless streets are widened and even then it will be a problem to be reckoned with. Further relief could also be offered if city authorities would give street cars precedence over other forms of traffic in view of their carrying such a large number of people.

This was tried out in Philadelphia. A traffic count was kept and it was found that the street cars carried four times as many passengers as all other forms of transportation combined. Acting on this information a ruling was made that all vehicles should stay off of the street car tracks and the result has been that the street railway headway has been increased 25 per cent.

In a recent survey made in the interests of better traffic regulation, it was found that in cities which permit parking privileges, from 20 to 25 per cent of the street space was used for standing vehicles, about 70 per cent of the balance was occupied by moving vehicles and only about 5 per cent was reserved for the movement of street cars. The standing vehicles, of course, had no passenger movement, the automobiles averaged not to exceed two persons, while the street cars even outside of peak periods averaged not less than thirty persons and during the rush hours carried from fifty to one hundred. In other words the 5 per cent of highway occupied by the street cars often carried as high as 80 per cent of the traffic.

In certain large cities the congestion of traffic at the peak periods is terrific. Chicago's "loop" district, which occupies the center of the city and covers the down town business section, offers such difficulties that a recent rerouting of cars has been undertaken to eliminate left hand turns. A traffic survey of the "loop" district showed that while passenger automobiles form 51.3 per cent of the traffic volume which enters the "loop" on a normal week day they carry only 18.9 per cent of the passengers, whereas the street cars, which form only 10 per cent carry 74 per cent of the passenger movement.

All over the country, traffic experts are making surveys in an effort to establish the relation which various forms of vehicular transportation bear to mass movement. In San Francisco, it was found that the street cars carried out of the congested district during the rush period 4½ times as many people as the automobiles and that in doing so they occupied less than one-third as much linear space.

A third problem which constantly occupies the mind of traction officials is that of taxation. Between 7 and 10 per cent of the gross revenues of electric railways are paid in taxation of different kinds, such as paving taxes and other expensive burdens. It was estimated that the

taxes paid by the electric railways in New York state alone amounted to more than the net revenues of all the other companies collectively. No other industry in the country pays as much of its gross revenue in taxation as the electric railways.

Taxation was originally worked out in the days when horses wore out the paving. When the street railways were electrified the paving clause was still included in the franchise. So far only forty-six cities and two states, Connecticut and Massachusetts, have released the railways from this burden. The actual cost of the paving together with the interest on the investment and maintenance represent from one-fourth to one-half a cent on every car ride.

The question of fares has always been one of paramount importance in connection with passenger movement. Today a fare of five cents does not actually pay for the expense of giving a passenger his ride. If street railway fares are to be made just and reasonable they cannot be predicated on conditions which obtained in the past. Wages, taxes and the prices of materials and supplies have all increased. Contrary to the principles of manufacturing, the labor costs in electric transit cannot be offset by the use of automatic machinery, mass production or increased individual output. Use of the one-man car and density of traffic do result in increased earnings, but there is no individual mechanical improvement which contributes largely to the earnings of the general run of the companies.

In analyzing the fare situation, what is known as a "cost of service" policy has been adopted by some companies. Our own Cleveland Railway Company is one of those who has worked this out with successful results. The cost of service includes interest on bonded and floating debt and six per cent return to the railway company on its outstanding capital stock. Fares may not exceed the cost of service, the rate to be graduated as the demands of the service require. For the purpose of adjusting the rate of fare to these demands, an interest fund was created to be maintained at $500,000. Into this fund go all earnings in excess of the operating expenses and maintenance, depreciation and renewal allowance. There has been fixed in connection with this fund a maximum and minimum figure. When the balance credited to the fund, less accrued proportionate payments, exceeds the established limits, the fare rate is lowered or raised immediately as the condition dictates, but in accordance with a fare rate scale included in the city ordinance granting the railway company the right to operate.

The establishment of a fixed fare over a period of years is unsound. To be just to both sides fares should be predicated on costs. Operating expenses differ widely in different localities. It costs considerably more to operate, for example, in a hilly country and then again density of traffic in a given area reduces costs in somewhat the same proportion as mass manufacture. Basing fares on the cost of service, the average fare throughout the United States advanced from 5.09 cents on January 1, 1918, to 7.33 on March 1, 1924. It has been above seven cents steadily since January 1, 1921. The only place where the old five-cent rate may be used with justice to both sides is in a limited central zone where distances are short and traffic is heavy. High traffic density reduces the per passenger cost of power, overhead, track and all equipment. One example of intensive transportation is shown by the electric railways of the city of Detroit, which is one of the great manufacturing centers of the world. At its three peak periods, thousands of men arrive and depart from the different factories. During one given month, that of April, 1923, the street railways carried 41,685,537 people over their lines. A quick turnover of loads or dense traffic makes it possible to operate on a five-cent fare within the city limits on interurban roads, or large cities may be zoned and the five-cent fare used within the central zone, making a small charge for transfers. Statistics show that throughout the United States, 173 cities have a seven-cent fare, 150 a ten-cent fare, 83 a six-cent fare, and 52 a five-cent fare, but most of the cities with the five-cent fare are small and many of them do not offer city wide service at that rate.

An interesting fare experiment was tried out in Ft. Wayne, Indiana. A weekly pass was sold for $1, which entitled the owner to as many rides as he chose to use and which was transferable to all members of the family. (Even so, of course only one member can use it during peak periods.) The first week 2,800 were sold. At the end of two years the number had risen to 9,600 a week. This pass is a great relief to the conductors as it obviates the need of making change and of issuing transfers. It also insures the company a settled income.

Throughout the country strenuous efforts are being made on all sides to reduce operation expenses by every legitimate means. One-man car operation has been put in force in many localities and automatic substations are being installed which operate with less waste and without manual attendance. Formerly it took from one to six men to operate one of these stations throughout a 24-hour period. Now the operations are completed automatically.

The Cleveland Railway was a pioneer in the installation of these stations. With the increase of traffic and the higher speed of trains, it became necessary to secure relief in areas where low operating potentials, due primarily to the distance from the nearest source of energy, were being encountered. The decision was to install automatically operated substations. It has been estimated that in the operation and maintenance of the first three automatic substations there was an overall reduction of approximately 28 per cent in total expense as compared with manually operated plants.

One great factor in retarding better service has been the difficulty of financing the roads. Public utilities differ from other lines of commercial endeavor because of the large investment required before service can be given. In fact it has been estimated that it requires from three to five dollars of additional capital to handle every dollar's worth of new business. Also most industries require not only far less capital but have a much more rapid turnover. The average turnover of money invested in electric light and power companies is said to run about once in five or six years. Moreover public utilities are prevented by law from earning in excess of a so-called reasonable

return, whereas the prosperous industrial corporation may reinvest its profits for expansion purposes.

Recently there has been a great change in the mind of the public, and electric railway securities are beginning to attract very favorable attention. *The Commercial and Financial Chronicle* gives the amount of electric railway securities sold during 1923 as $28,000,000, whereas during the first seven months of 1924, electric railway financing exceeded $69,000,000, which was seven per cent of the $1,000,000,000 devoted to public utility financing over this same period. Interesting too is the fact that whereas three or four years ago the public utilities found it difficult to float long term notes and then only at onerous interest, now they are able to place large bond issues and substantial blocks of stock at current rates. This is unquestionably due to the restoration of public confidence because of a better comprehension of the fundamental need of properly managed and continually improving transportation methods if the prosperity of communities is to be assured.

Widespread advertising and constructive publicity has been resorted to among the different companies in order to promote interest along their lines and to sell stock among its customers. For example the Consumers Power Company of Michigan adopted the plan of distributing 20,000 Michigan road maps among its shareholders as well as among civic clubs and other organizations of this character. This map had the company's lines printed on it in red so that as the owner passed it he would recognize it as "his company's property." The map was bound in an attractive cover, with a picture of one of the dams and accompanying each map was a letter which welcomed the recipient at any of the power plants. During the three and one-half years in which this company has been engaged in customer ownership work it has marketed close to $12,000,000 worth of preferred shares with a turnover or resale which does not exceed 4½ per cent.

Making an effort to sell its paper among its own employes and along its right of way has been a powerful factor in the rehabilitation of many of the traction companies. Public service corporations more than any others may profit directly by employe and customer ownership. In no other line of business does the good will of the public count for so much in the prosperity of the enterprise and in no other line of business do the employes have such universal contact with the public. Political domination has always been the big bugaboo of the public service corporations and is its greatest inimical factor. Where the employes of a company and the members of the community own a large part of the business, it is a difficult matter for the politician to interfere because he is directly jeopardizing the interests of those whose votes he must secure.

Britton I. Budd, President of the Chicago Rapid Transit Company, who has just retired from the presidency of the American Electric Railway Association, expressed to me his opinion that electric railways are in a stronger position today than they have occupied for some years. He went on to say:

"Receiverships, so common in the industry four or five years ago, are becoming fewer. In the first nine months of 1924, six companies operating 138 miles of railway and with outstanding securities totaling $113,650,000 were reorganized and emerged from receiverships. True, an equal number went into receiverships but they were small companies with outstanding securities of only $6,915,000. A similar favorable condition obtained in 1923 when companies representing 832 miles of railways and a capitalization of $266,588,946 emerged from receiverships."

To speak of the enormous strides which are being made in the way of service is unnecessary to those who are watching the developments of the roads. The Chicago, North Shore and Milwaukee Electric was one of the first of the roads to realize the possibilities of de luxe service. Over ten years ago, it inaugurated limited trains between Chicago and Milwaukee with chair cars and diners and all the luxury of the best trains in the railroad service.

Something over two months ago, the Interstate Public Service Company of Indianapolis, Indiana, began running sleepers between Indianapolis and Louisville. Luxurious chair cars and diners are also included in the makeup of its limited trains which ran between the two cities. Unique in electric traction service is its method of handling the sleepers over this three-hour stretch. They are parked in a quiet end of the terminal at Indianapolis until midnight and are then moved to a beautiful spot near a lake just outside of Louisville, where they are set out until shortly before the time of arrival in that city.

Another remarkable feature of the service given by President Harry Reid, is the development of the agricultural districts along the right-of-way. Farmers are educated as to the best manner of cultivating their lands, are given assistance in the selection of crops and are aided in a study of marketing. In return, the road has built up a remarkable freight service and probably handles more cattle on its lines than any other electric traction company.

This work is especially notable inasmuch as the Interstate took three companies, two of which were run-down and not paying expenses, and has developed them into a fine, profitable road.

Close attention to what the public utilities are doing will convince even the most skeptical that where they are properly protected and encouraged by community effort, they will prove to be the biggest single factor in local development.

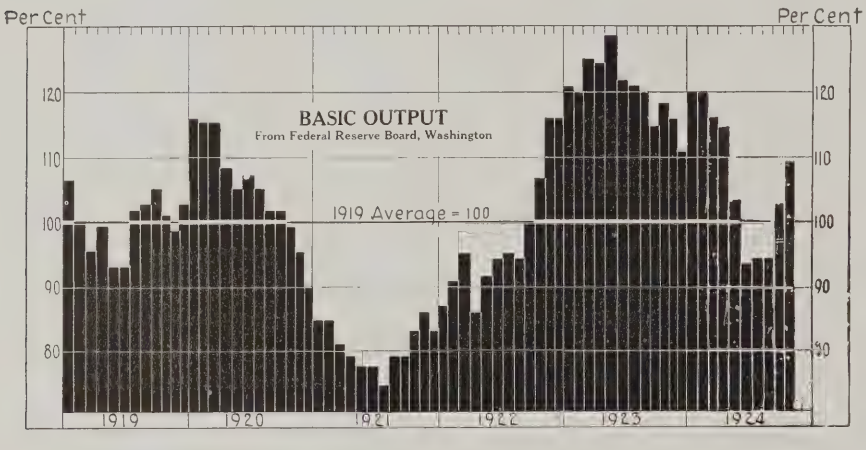
Business Conditions

By C. L. Bradley
Vice President The Union Trust Co.

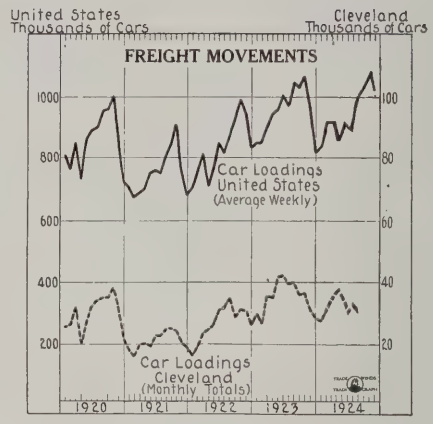
The past month has brought with it no new or outstanding business developments worthy of considerable comment or analysis but rather a gradual, well ordered progress toward generally improved conditions.

Few people expected that the election would be followed by a boom period and the last six weeks give ample indication that business does not desire an untimely or unhealthy expansion.

There are indications without number, however, that business men are pushing forward, and sentiment



Expanding activities in iron and steel, textile and many other lines are reflected in the curve of Basic Output. The index stood at 103 in September and in October it had advanced to 109. The gain over the bottom level of 93 in June was 16 per cent. The sharp slump in the summer caused needs to accumulate in various industries. These were translated into demand with the result that outputs have increased. Some seasonal slackening in December is possible in industry due to inventory taking and the holidays



Eight new high records have been made in the handling of freight by the country's railroads this year. Loadings in the week ended Oct. 25, stood at 1,112,000 cars—a new high record for all time. In the second and third weeks of November, loadings passed the 1,000,000 mark for the first time for corresponding weeks in any previous year

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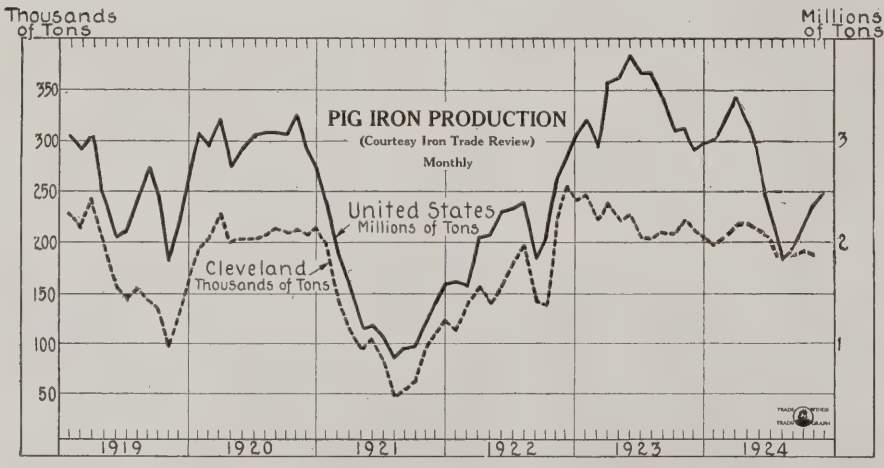
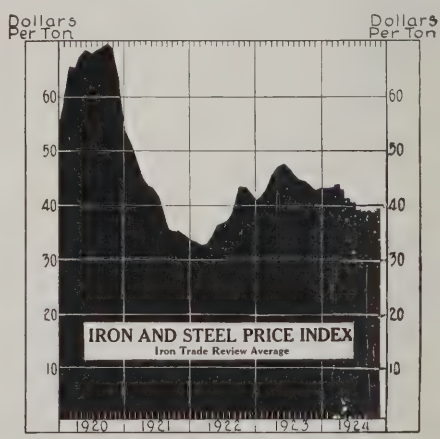
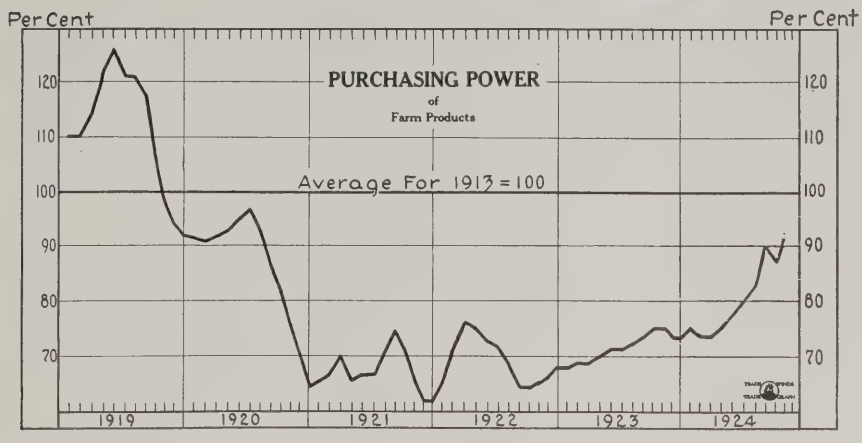
Unfilled orders of the United States Steel Corporation reported on December 10, as of November 30, showed an increase of 506,699 tons. This was the widest increase for any month since September, 1922. The total is now 4,031,969 tons, the highest since last April. Since the bottom level of the summer, forward bookings of the Corporation have increased by 844,787 tons



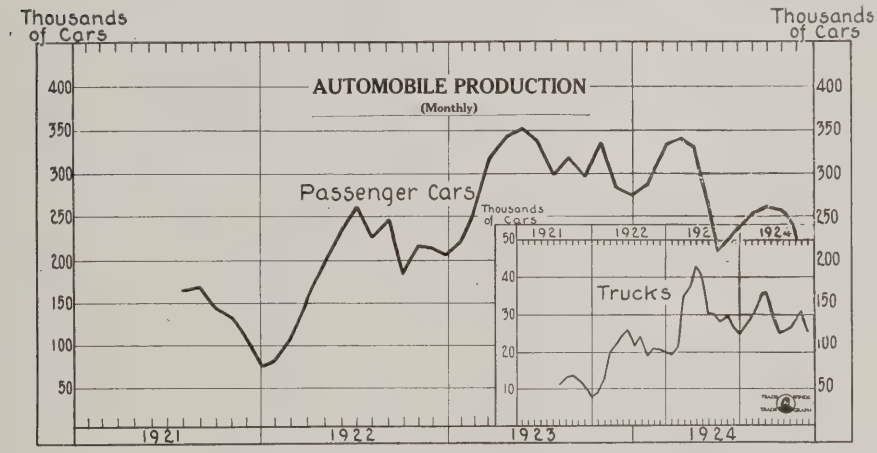
Since Nov. 1, pig iron has enjoyed the most active buying movement in four years. In November, orders for approximately 1,500,000 tons had been placed with producers. As a result prices have grown firmer and production has increased. In November, the output of iron in the United States was 2,513,247 tons, the highest total since May. The daily average output for the month showed a gain over October of 5.5 per cent. Compared with the July low point an increase of 45 per cent is shown. Total output for the year will approximate 31,000,000 tons against 40,025,000 tons in 1923, a decline of 23 per cent



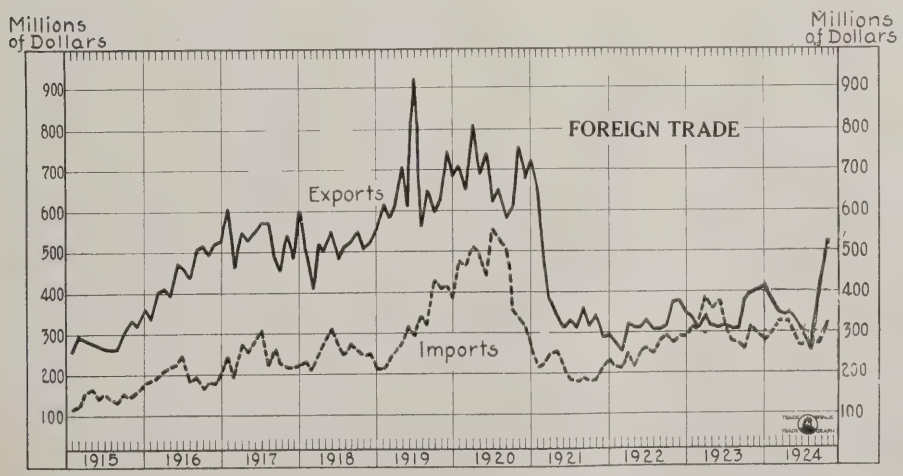
Production turned up in August, but the improvement of prices which always lags in the recovery, did not appear until November. Much of the business of recent weeks has been placed at low price levels. Firmer tendencies have stimulated buying of steel for future delivery on a large scale for the first time since early 1923



No development of 1924 has been of greater importance than the improvement in the economic position of the farmer. The gap between the prices of the things he produced and sold and the things he purchased, has been closed. In 1921, there was a spread of 52 points between the wholesale price index of industrial goods and that of farm crops. Finally, last summer this condition was remedied by advancing prices for crops. As a result, the purchasing power of the farmer at 91 per cent of 1913 is the best since 1920



Preliminary estimates by the National Automobile Chamber of Commerce indicate an output of 248,113 passenger cars and trucks for November. This was 14 per cent below the October total and 21 per cent under that for November 1923. December is bringing even further curtailment of output. This is due partly to inventory taking and partly to manufacturers' desire to avoid last year's mistake of overproduction. The cut in output since last spring has helped correct the overstocked condition of the trade. The year's output will total about 3,600,000 cars against 4,000,000 in 1923, a decline of 10 per cent



— as well as more substantial indices — is unanimous in anticipating constantly increasing volume.

The past month has witnessed no radical price changes, although October registered the highest point in nearly four years in agricultural products — 49 per cent above the 1913 level. One of the most encouraging signs of the moment is the elimination of the enormous spread between the prices of farm products and prices of manufactured merchandise—indicating that the farmer may be expected back into the buying field at no distant date, although it is reasonable to presume that his appearance as a buyer in quantity will be delayed until he recoups from his past years of depression.

Typical of the average, steel and iron operations continue to gain slowly and average between 70 and 75 per cent capacity with a broadening demand for steel reported from all sections.

The list of minor betterments occurring during the last month might be elaborated upon almost indefinitely, but the message of the aggregate is that business is on the upgrade with conservatism at the helm.

It is unlikely that great progress can be reported for any fortnight, but from every indication it seems probable that the early part of the coming year will bring an admission from practically every industry that "business is good."

We see little if any reason for aught but optimism and the suggestion that prices be watched closely, though in the majority of lines a period of price stabilization will be likely to occur before any material increases are reported.

Obviously, this is the moment that business men have looked forward to for a number of years — a moment when Industry rests upon a firm and level keel, when the European situation is comparatively quiet, when political uncertainty is replaced by stability, when the farmer has cause for encouragement. Certainly, for several years past, we have not had so much reason to believe that our wish for you for a prosperous New Year will be so amply realized

English Business Conditions

By Barclay's Bank Limited
London, England

Business sentiment in this country is still dominated by the result of the General Election. The sense of relief felt at the establishment of a settled and stable Government is not so much due to any change in its political color, but more to the removal of the constant danger of a political crisis and the possibility of a General Election, which is inevitable when a minority party is in office. Taken in conjunction with the successful launching of the Dawes scheme in Germany, and the brighter prospects for European trade thereby opened, these political developments at home have been reflected in a rising tide of confidence, and the outlook for trade is distinctly brighter than it has been for many months past.

	Production Pig Iron Th. Tons	Production Steel Th. Tons	Imports Iron and Steel Th. Tons	Exports Iron and Steel Th. Tons
1913 (average monthly)	855.0	639.0	185.9	414.1
1923 — January	567.9	634.1	128.9	353.4
July	655.1	624.3	114.1	307.6
1924 — January	631.5	690.1	141.5	337.7
April	618.4	711.5	198.9	336.8
July	615.6	693.3	201.2	339.7
September	569.2	645.0	207.2	263.8
October	586.4	678.5	241.3	309.2

The note of caution, however, is not completely absent. It is realized that, although conditions may be improving, they have not yet been reflected in any material increase in active business, and that many difficulties have still to be reckoned with.

One feature of the month has been the great activity on the Stock Exchange, following the General Election. Industrial shares, in particular, experienced something of a mild boom. To some extent this was justified, for unquestionably many sound industrial shares had been depressed during the period of political uncertainty, to a level below their intrinsic value. But as is usual when a wave of optimism affects the market, the movement was somewhat overdone, and the high level of prices at first established, has not been fully maintained. Nevertheless, the increasing demand for industrial securities does reflect the general confidence that an improvement in trade is imminent, and this confidence is a very real factor in bringing it to pass.

In certain industries also, it is possible to report a distinct improvement. Manchester manufacturers of piece-goods are in a stronger position than at any time this year. During the past month sufficient business has been done to extend engagements, and as there is now less pressure for fresh orders, it is more possible to insist upon remunerative prices. On November 3rd, the number of hours worked weekly by mills spinning American cotton was increased from 26¼ to 32, and ballot papers have now been sent out to the members of the Federation of Master Cotton Spinners Associations, accompanied by a strong recommendation that the working week should again be extended to 39¼ hours. The recommendation was only made after careful consideration of every aspect of the trade and it is a clear indication of the improvement, compared with the conditions existing three months ago. In the wool trade, also, there is a distinctly more confident feeling, although the position is still dominated by the conditions governing the raw material. There is more trade in yarns, but, in the weaving section, manufacturers still complain of the difficulty of obtaining new business at existing prices. Even in the iron and steel trades, which for so long have been among the most depressed of any of the large industries, a more optimistic feeling prevails. So far this has been reflected mainly in a continued demand for pig iron and in an increase in the enquiries for raw and semi-manufactured material. Both Sheffield and Birmingham, however, report better business in cutlery and machine tools respectively. The number of furnaces in blast at the end of October was 171 — an increase of one since the beginning of the month, and the production of both pig iron and steel shows a considerable increase.

There has been no material change in the condition of the coal market, and exports have continued to be below the weekly average for the first half of the year. The production figures have averaged slightly lower than during the previous month.

Coal Production in Great Britain

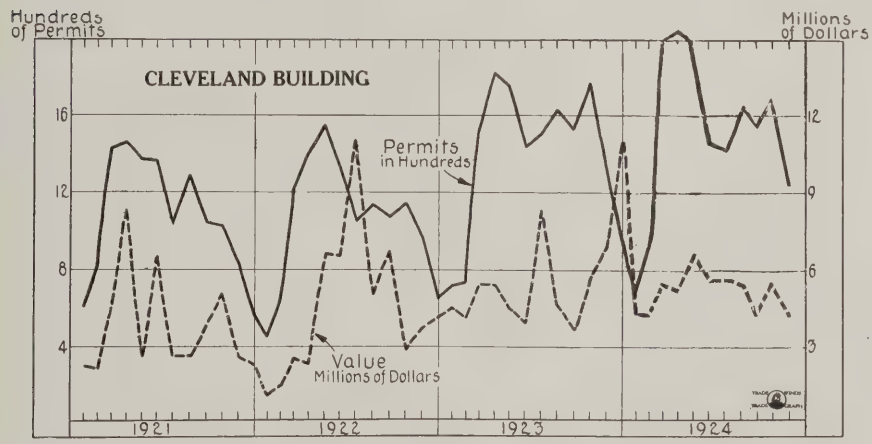
	Tons
1913	287,000,000
1923	278,000,000
1924 (Total to Nov. 1st)	228,000,000
1924	
Week ended: Oct. 4th	5,155,300
Oct. 11th	5,088,300
Oct. 18th	5,146,500
Oct. 25th	5,061,100
Nov. 1st	5,042,600

The Board of Trade Returns of the Overseas trade of the United Kingdom, while showing a very considerable increase in turnover, as compared with the previous month, are not altogether reassuring. The table on page 22 shows the comparison between the October figures and those for earlier periods.

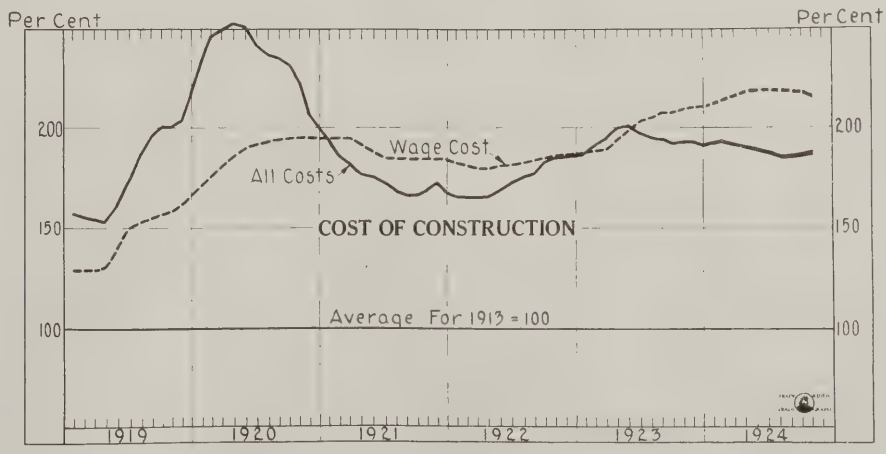
It will be seen that the consistent increase in imports which has characterized the past few months has still not been reflected in a corresponding expansion in exports. So far as the export of British products is concerned, the total for October is slightly less than that for the corresponding month in 1923. It should, however, be mentioned that the larger import figures are, to a great extent, due to exceptionally heavy seasonal movements in wheat and cotton. Retained imports of wheat were 10 million cwts. as compared with 7 million cwts. in October

1923 and 6 million cwts. in October 1922, while in value wheat and flour together accounted for nearly £4 million of the increased value of retained imports as compared with October 1923. The decline in exports, as compared with the corresponding month in the previous year, is chiefly due to decreased exports of coal, which were 4,933,000 tons in October 1924 against 7,433,000 tons in October 1923. In a lesser degree, iron and steel manufactures have also contributed to the decrease in total exports, the figure being 309,000 tons as against 389,000 tons in October 1923. For the first ten months of 1924, exports of iron and steel manufactures were 3,238,000 tons against 3,570,000 in the corresponding period of 1923. These figures rather confirm the view that the distinctly more confident feeling now evident, is still to be reflected in a definite expansion of British export trade, which it is hoped will be possible through the improved political conditions now prevailing on the Continent. Evidence is not altogether lacking, however, that a definite turn in the curve of trade has been reached. Unemployment, after increasing for many weeks, has, during the past month, shown a small diminution. Bankers advances have been steadily increasing for some months past. The weekly average for October of the London Clearing Banks was £807 millions, an increase of over £12 millions over September and the highest total recorded since the middle of 1921. In some measure, the larger demands for credit may be due to the higher level of prices — the Board of Trade index of wholesale prices having risen by 7.7 per cent during the past twelve months. But the extent of the increase in loans is greater than can be explained in this manner and there is every reason to believe that a distinct revival is in process, which in due course should be reflected in increasing export figures.

	Oct. 1924	Sept. 1924	Oct. 1923	Monthly Average Aug.-Oct. 1924	Monthly Average Aug.-Oct. 1923
	In million £				
Imports	120.5	100.9	99.9	107.8	90.5
Exports: Of United Kingdom Produce and Manufactures	68.6	63.3	71.3	66.1	65.1
Of foreign and Colonial merchandise	12.9	9.6	11.1	10.5	8.5



The volume and estimated value of building construction in Cleveland showed some decline in November. The number of permits was 1,271 with an estimated valuation of $4,330,800 compared with 1,705 permits for $5,702,000 in October and 1,334 permits for $6,905,090 in November 1923. Although there have been no permits issued in 1924 for projects valued at above $1,000,000, the total valuation of new construction in Cleveland for 11 months to December 1, was $58,772,000. This compares with a total of $58,372,000 in the same period of 1923



Strengthening prices for building materials have caused a slightly firmer tendency to appear in costs of construction. In the summer, the construction cost index, computed by the Federal Reserve Bank of New York, declined to 87 per cent above the 1913 level. This was the lowest point touched since the close of 1922. In October the index had recovered to 88 per cent above 1913. Building material prices now stand at 71 per cent above 1913 compared with 69 per cent above 1913 in the summer. Wages in the building industry at 114 over the prewar base are a shade under the peak for all time earlier in the year. In view of the present building and business outlook further advances of costs are probable

The Timber Problem

Continued from page 13

greatly regrets the tremendous waste that has accompanied the utilization of all the natural resources in the United States, he sees that much of this waste was unavoidable in the development of a pioneer region. He has come to believe that the solution of most problems is primarily economic rather than political, and he knows for certain that if the people who go into the woods to hunt and fish and camp would be careful with fire, they would do more for the protection of forestry than all the politicians in Washington. He approves most heartily recent legislation providing for co-operation between the Federal Government, the states, and the timberland owners in organized fire prevention, and he is reliably informed that the prevention of forest fires is 75 per cent of the problem of getting a future timber crop of commercial value on the forest lands in this country. He believes also that it is good policy to continue the building up of publicly owned forests until perhaps 40 per cent of the total forest area of the United States is thus dedicated to permanent timber production. He likewise knows that the application of the general property tax each year to growing timber is as unfair as would be the taxing of a field of corn every week during the summer season. He knows that there are difficulties in the way of making the necessary changes, but he feels that somehow means will be found to apply a yield tax to privately owned forests, which will bring substantial revenue into the public treasury when these forests are cut, and yet which will not prevent the owner from engaging in timber production. John also knows that while much has already been done to educate both the manufacturers of forest products and the many users of them to more scientific methods of operation, there is yet a great field for further study and the development of more economical methods of using forest products. He can easily see that the making of one board do the work formerly done by two is forest conservation, just as much as are fire prevention and tree planting — and he is told by the foresters that sometime and somehow about eighty million acres of potential forest land in this country will have to be planted if it again produces a timber crop of much value. John is also discovering more recently that forest experiment stations, where the factors that affect tree growth can be studied over a long period of years, are as important as are the agricultural experiment stations which have done so much to increase the yield of farm crops.

Backed by this knowledge, John does not hesitate to tell the Director of the Budget in Washington that liberal annual appropriations for forestry are an investment in the future welfare of the country, and he is also taking steps to see that each State does its share in the undertaking.

When John hears of a forest fire these days, he no longer passes it off as a matter of no concern. He knows at last that something of very real value to himself is going up in costly smoke.

In fact, John and his relatives and neighbors who see things the same way have become so numerous that the forestry legislation which came up at the last session of Congress was passed by the largest majority ever given to such proposals in the House of Representatives. John is now in a more hopeful frame of mind regarding the future than he was a few years ago. He still knows that there may be a time between hay and grass, beginning not many years hence, measured by the life of a tree, when there will be an acute timber shortage; that supplies may be scarce and hard to get during the period between the cutting out of the virgin timber stand and the coming on of another crop, brought about by the measures of forest protection which are now beginning to be applied. He knows, however, that other countries went through the same experience before they got upon a basis of sustained annual forest growth and the cutting of forest products at no greater rate than the yield. He knows that no other country in the world has better species of native timber or more favorable natural situations for tree growth than the United States. He knows that at least 20 per cent of the total land area of the country is fit only for the growing of timber, and he has faith to believe that the application of sound principles of forest production and utilization will result in a final sustained annual yield sufficient to supply the normal needs of the population which the United States will have at that time.

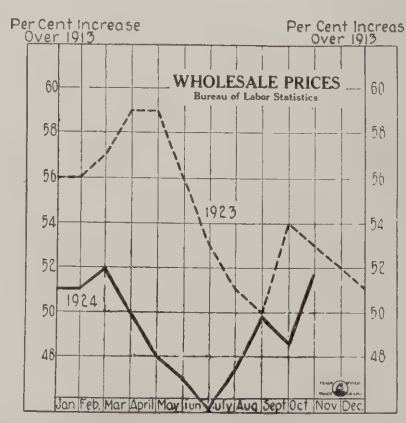
Toy Headquarters

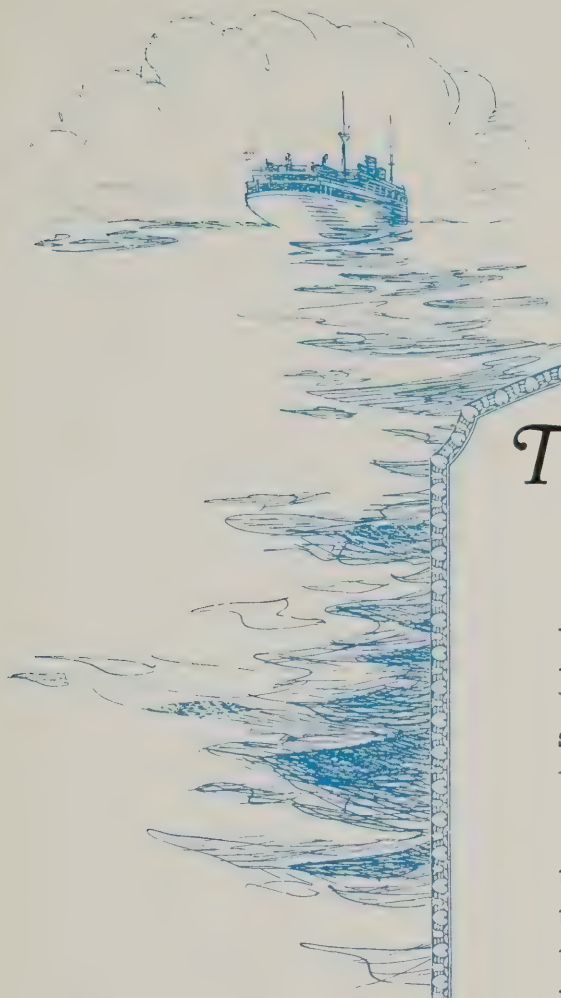
Continued from page 9

facture of bisque doll heads. There has been an increase in the cost of packing materials, varnish and lacquer.

In former years nearly $9,000,000 worth of toys came to this country from Germany. This year government experts estimate that not a third of that amount will be imported. Such is the growth of the toy industry in America.

Wholesale commodity price averages are now distinctly on the rise. The Bureau of Labor statistics index which declined slightly in September rebounded in October to 52 per cent above the 1913 average. This was a gain of 5 per cent over the low point of the year in June. The gain reflects the sweeping advances for grain and, more recently, increases for many other commodities including metals, textiles and building material





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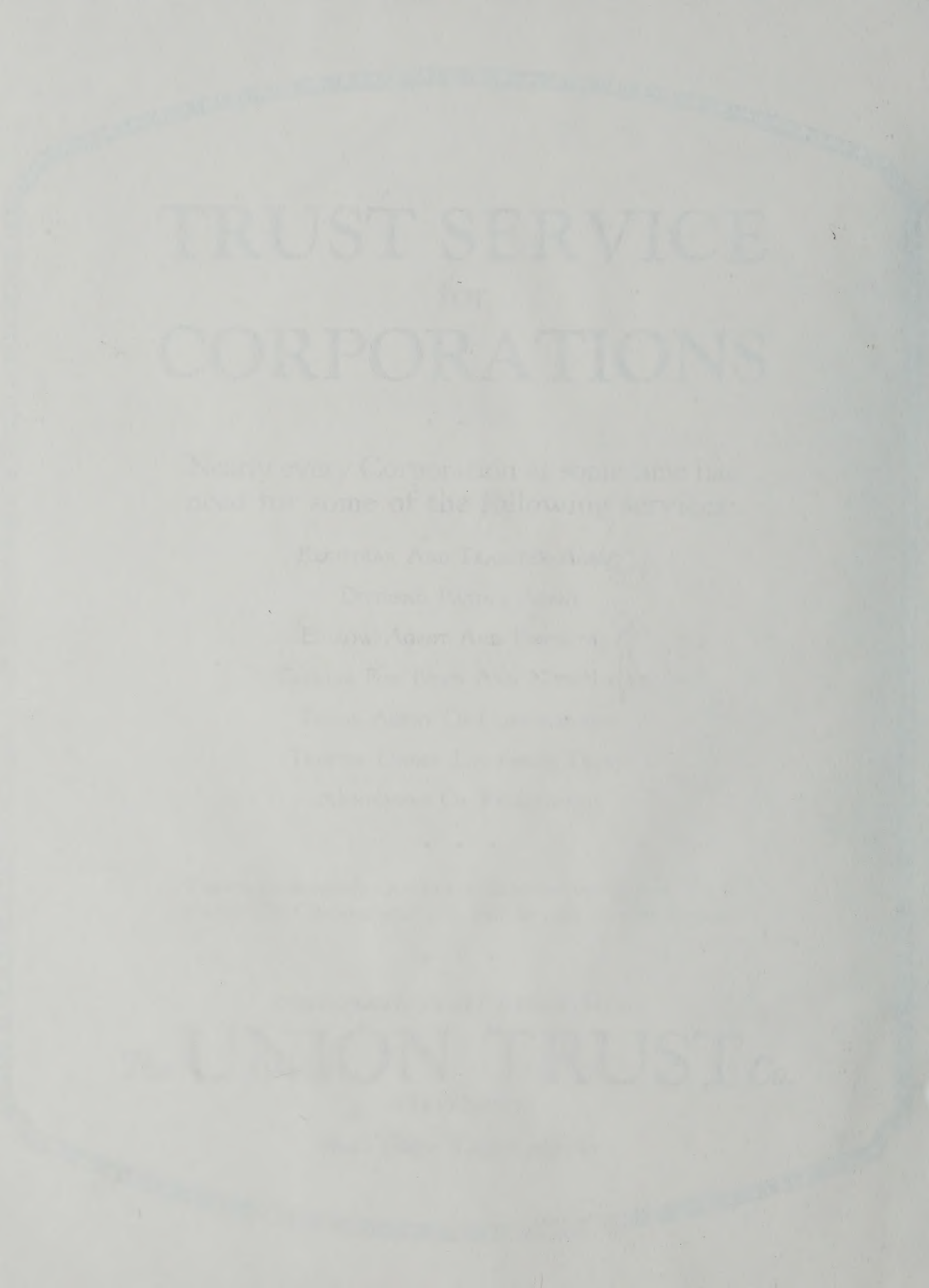
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